

[目次 Contents]

○ プログラム・コンビネーション音色 バンクリスト
Program / Combination Bank List○ M I D I チャンネルメッセージ
MIDI Channel Messages○ システム リアルタイム メッセージ
System Realtime Messages○ ユニバーサル エクスクルーシブ メッセージ
Universal Exclusive Messages○ パート パラメータ チェンジ
Part Parameter Change Messages○ システム エクスクルーシブ メッセージ
System Exclusive Messages

1. Mode Change
2. System Status Request
3. MAP change
4. Dump Request
5. Voice Name Dump Request
6. Data Dump
7. Write Request
8. Exclusive Dump Reply
9. Part Parameter Change
10. Edit Parameter Change
11. LCD BackLight Color
12. Remote Switch
13. Capture LCD Data
14. 05R/W Multi Setup

○ エディット パラメータ チェンジ
Edit mode Parameter Change Messages

Global Mode.	Edit Parameter Change/Data Dump
Effect Edit Mode.	Edit Parameter Change
Drumkit Edit Mode.	Edit Parameter Change
Program Edit Mode.	Edit Parameter Change/Data Dump
Combination Edit Mode.	Edit Parameter Change
Multi Play Mode.	Edit Parameter Change
Performance Play Mode.	Edit Parameter Change
Performance Edit Mode.	Edit Parameter Change
Effect Edit Mode.	Edit Parameter Change/Data Dump

○ エクスクルーシブ データ ダンプ
System Exclusive Data Dump

Global Parameter Data
 Program Parameter Data
 Drum Kit Data
 Effect Parameter Data
 Combination Data
 Performance Data

```

*****
*
*          プログラム・コンビネーション音色 バンク リスト
*          Program / Combination Bank List
*
*****

```

Bank Map List	
Bank Name	Bank Select (MSB:LSB)
CmbU	58:xx
CmbA	59:xx
CmbB	5A:xx
CmbC	5B:xx
PrgU	50:xx 00:00(05)
PrgA	51:xx

Bank Map List	
Bank Name	Bank Select (MSB:LSB)
r:32	20:xx
r:33	21:xx
r:40	28:xx
r:CM	7D:xx 7F:xx(GS)
y:01	00:01(XG)
y:03	00:03

Bank Map List	
Bank Name	Bank Select (MSB:LSB)
y:42	00:2A
y:43	00:2B
y:45	00:2D
y:64	00:40
y:65	00:41
y:66	00:42
y:67	00:43

PrgB	52:xx	y:06	00:06	y:68	00:44
PrgC	53:xx	y:08	00:08	y:69	00:45
GM-b	38:00 39:00	y:12	00:0C	y:70	00:46
GM-a	00:00(GS/XG) 00:01(GS)	y:14	00:0E	y:71	00:47
r:01	01:xx	y:16	00:10	y:72	00:48
r:02	02:xx	y:17	00:11	y:96	00:60
r:03	03:xx	y:18	00:12	y:97	00:61
r:04	04:xx	y:19	00:13	y:98	00:62
r:05	05:xx	y:20	00:14	y:99	00:63
r:06	06:xx	y:24	00:18	y100	00:64
r:07	07:xx	y:25	00:19	y101	00:65
r:08	08:xx	y:27	00:1B	ySFX	40:xx
r:09	09:xx	y:28	00:1C	yDr1	7E:xx
r:10	0A:xx	y:32	00:20	yDr2	7F:xx(XG) 78:xx(XG)
r:11	0B:xx	y:33	00:21	rDrm	3D:xx 78:xx(GS)
r:16	10:xx	y:34	00:22	kDrm	3E:xx 78:xx(05)
r:17	11:xx	y:35	00:23	****	3F:xx
r:18	12:xx	y:36	00:24		
r:19	13:xx	y:37	00:25		
r:24	18:xx	y:38	00:26		
r:25	19:xx	y:39	00:27		
r:26	1A:xx	y:40	00:28		
		y:41	00:29		

* (GS) : after GS Reset
 * (XG) : after XG System ON
 * (05) : 05R/W Map

Performance Change Bank
 Bank MSB = 5F(hex) = 95
 Bank LSB = ignore
 Program No.= 00 to 1F(hex) = 0 to 31 (Performance 01 to 32)

'yDr2' Bank (Bank MSB=7Fh)		'yDr1' Bank (Bank MSB=7Eh)	
Drum Kit List (Drum Bank)		Drum Kit List (Drum Bank)	
Program No. (PC# xxh)	Drum Kit Name	Program No. (PC# xxh)	Drum Kit Name
1 (00h)	Standard	1 (00h)	SFX 1
2 (01h)	Standard	2 (01h)	SFX 2
9 (08h)	Room		
17 (10h)	Rock		
25 (18h)	Electro		
26 (19h)	Analog		
33 (20h)	Jazz		
41 (28h)	Brush		
49 (30h)	Classic		

'rDrm' Bank (Bank MSB=3Dh)		'kDrm' Bank (Bank MSB=3Eh)	
Drum Kit List (Drum Bank)		Drum Kit List (Drum Bank)	
Program No. (PC# xxh)	Drum Kit Name	Program No. (PC# xxh)	Drum Kit Name
1 (00h)	STANDARD	1(00h)...16(0Eh)	GM Kit
2 (01h)	STANDARD	17(10h)...24(17h)	Power Kit
9 (08h)	ROOM	25(18h)	Dance Kit
17 (10h)	POWER	26(19h)	Analog Kit
25 (18h)	ELECTRONIC	27(1Ah)...32(1Fh)	Dance Kit
26 (19h)	ANALOG	33(20h)...40(27h)	Jazz Kit
27 (1Ah)	DANCE	41(28h)...48(2Fh)	Brush Kit
33 (20h)	JAZZ	49(30h)...56(37h)	Orch Kit
41 (28h)	BRUSH	57(38h)...64(3Fh)	GM Kit

49 (30h)	ORCHESTRA	65(40h)...72(47h)	Perc Kit
50 (31h)	ETHNIC	73(48h)	User Kit 1
51 (32h)	KICK&SNARE	74(49h)	User Kit 2
57 (38h)	SFX	75(4Ah)..128(7Fh)	GM Kit
128 (7Fh)	C/M		

各バンクの説明 Bank Descriptions

Bank Name	Description
CmbU	コンビネーション ユーザーバンク (書き換え可) Combination User Bank (Rewritable)
CmbA ...CmbC	コンビネーション プリセット A・B・C Combination A/B/C (Preset)
PrgU	プログラム ユーザーバンク (書き換え可) Program User Bank (Rewritable)
PrgA ...PrgC	プログラム プリセット A・B・C Program A/B/C (Preset)
GM-b	GM基本音色 (コルグ 05R/W, Xシリーズ互換) GM Level 1 Sound Set (KORG traditional)
GM-a	GM基本音色 (GS, XG) GM Level 1 Sound Set (GS/XG friendly)
r:01 ...r:40	GMバリエーション音色 (GSマップ) GM Variations (GS Map)
r:CM	CM-64 (Roland) バンク Roland CM-64 Map
y:01 ...y:101	GMバリエーション音色 (XGマップ) GM Variations (XG Map)
ySFX	SFX 音色 (XG 用) SFX (XG Map)
yDrl	SFX ドラムキット (XGマップ) SFX Drum Kit (XG Map)
yDr2	XG ドラムキット XG Drum Kit
rDrm	GS ドラムキット GS Drum Kit
kDrm	GM ドラムキット (コルグ 05R/W, Xシリーズ互換) GM Drum Kit (05R/W Map)
****	無音 音色 Muted

※ CmbA, CmbB, CmbC, PrgA, PrgB, PrgC バンクの音色及び CmbU, PrgU バンクのプリロード音色は、コルグ NS5R (シンセサイザー音源モジュール) との互換性はありません。

他のバンクはコルグ NS5R との互換性があります。

CmbA, CmbB, CmbC, PrgA, PrgB and PrgC Presets, and CmbU / PrgU Preloads are different from the Korg NS5R synthesizer module.

GM descendants banks are identical to the NS5R.

*
* MIDI チャンネルメッセージ *
* MIDI Channel Messages *
*

* n : Channel 00h..0Fh 0..15
* vv : Value 00h..7Fh 0..127
* kk : Note No. 00h..7Fh 0..127 (C-1..G9)

Message	MIDI (Hex)	Description (Value)
Note ON	9n kk vv	kk:C-1..G9 vv:1..127(velocity)
Note OFF	9n kk 00	kk:C-1..G9
Note OFF	8n kk 40	kk:C-1..G9
Program Change	Cn vv	0..127
Channel Pressure	Dn vv	0..127 After touch Depth
PitchBend Change	En mm ll	mm:ll= 0:0..64:0..127:127
Poly Key Pressure	An kk vv	kk:C-1..G9 vv:1..127 (Receive Only)
Control Changes		
Bank select(MSB)	Bn 00 vv	Voice Bank Select
Bank select(LSB)	Bn 20 vv	
Balance	Bn 08 vv	0-64-127 Lower-Even-Upper LevelBalance **1-1
Modulation Wheel	Bn 01 vv	0..127 Pitch LFO (default)
Panpot	Bn 0A vv	0..64..127 L63..Center..R63
Volume	Bn 07 vv	0..127 Volume
Expression	Bn 0B vv	0..127 Expression
AssignableController1	Bn 10 vv	0..127 MOD.2 assign control
AssignableController2	Bn 11 vv	0..127 MOD.3 assign control
Hold1 Switch (Damper)	Bn 40 vv	0/127=OFF/ON Damper Pedal
Sostenuto Pedal	Bn 42 vv	0/127=OFF/ON Sostenuto
Soft Pedal	Bn 43 vv	0/127=OFF/ON Soft Pedal
Harmonic Content	Bn 47 vv	0..127 Color
Brightness	Bn 4A vv	0..127 Filter Cutoff
EG Release Time	Bn 48 vv	0..64..127 EG Release Time **1-2
EG Attack Time	Bn 49 vv	0..64..127 EG Attack Time **1-2
Sound Controller 6	Bn 4B vv	0..64..127 EG Decay Time **1-2
Effect1 Control	Bn 0C vv	0..127 Effect Dynamic Mod. **1-3

Effect Level 1	Bn 5B vv	0..127	'C' (Reverb) Send Level
Effect Level 3	Bn 5D vv	0..127	'D' (Chorus) Send Level
Effect Level 2	Bn 5C vv	0/127=OFF/ON	Effect 1 Switch
Effect Level 5	Bn 5F vv	0/127=OFF/ON	Effect 2 Switch
Portamento Switch	Bn 41 vv	0/127=OFF/ON	Portamento Switch
Portamento Time(MSB)	Bn 05 vv	0..127	0=fast 127=slow
Portamento Control	Bn 54 kk	0..127	C-1..G9 source Key

****1-1 : レイヤー及びスプリット時のアップー音色とローー音色の音量バランス**
Volume balance between Upper and Lower sound when Layered or Splitted.
アップー・パートのMIDIチャンネルで送受信します。
Transmits and receives on the Upper part's MIDI channel.

****1-2 : プログラムパラメータで設定した値にオフセットを加えます。**
Added as offsets to programed value.
0..64..127 の値はオフセット -64..0..+64 に対応します。
Controller value 0..64..127 corresponds to offset -64..0..64.
ここで設定した値はパートパラメータを変更します。
The value set here overwrites Part parameter.

****1-3 : アップー・パートのMIDIチャンネルで受信します。**
Receives on the Upper part's MIDI channel.
エフェクトパラメータのエフェクトダイナミックモジュレーションソースの内容に関わらずエフェクトダイナミックモジュレーション効果がかかります。
This Dynamic Modulation is always in effect regardless of Effect Dynamic Modulation Source setting in the Effect parameters.
エフェクトダイナミックモジュレーションソースによりすでに効果が
かかっている場合、加算された効果がかかります。
The effect is added to the one from the Effect Dynamic Modulation Source.
ダイナミックモジュレーション インテンシティが +00 のとき効果はかかりません。
No effect if Dynamic Modulation Intensity is set to 0.

Message	MIDI (Hex)	Description (Value)	
NRPN LSB	Bn 62 vv	vv (cf. RPN/NRPN)	
NRPN MSB	Bn 63 vv	vv (cf. RPN/NRPN)	
RPN LSB	Bn 64 vv	vv (cf. RPN/NRPN)	
RPN MSB	Bn 65 vv	vv (cf. RPN/NRPN)	
Data entry MSB	Bn 06 vv	0..127 RPN,NRPN value	
Data Increment	Bn 60 00	Data Increment MSB value	**1-4
Data Decrement	Bn 61 00	Data Decrement MSB value	**1-4
Channel Mode Message			
All Sound OFF	Bn 78 00		
Reset All Controllers	Bn 79 00	PitchBend Change = Center Pitch Modulation = 0 CutoffModulation = 0 AssignControl 1 = 0 AssignControl 2 = 0 Expression = 0 Portamento = 0 (OFF) Channel Pressure = 0 PolyKey Pressure = 0 (All Key) Hold1(Damper) = 0 (OFF) Sostenuto = 0 (OFF) Soft Pedal = 0 (OFF) NRPN = Null RPN = Null	
Local ON/OFF (PC/IF)	Bn 7A vv	00=OFF, 7F=ON(effective all part) Receive if 'n'=EXCL channel	**1-5
All Note OFF	Bn 7B 00		
MONO mode ON	Bn 7E 0m	(m=1 only)	
POLY mode ON	Bn 7F 00		

****1-4: RPNパラメータの 上位バイト(MSB)の値を +1 もしくは -1 します。**
Increments / Decrements MSB of RPN parameters by 1.

****1-5: PC/IF ではEXCL Ch.のMIDI Ch.で受信します。MIDI入力をON/OFFします。**
When received from PC/IF on EXCL Ch., MIDI IN is turned on / off.
MIDI ではEXCL Ch.及び、UPPER Part のパート Ch.で受信します。
効果は全チャンネルにかかります。
When received from MIDI on EXCL Ch. or Upper part's channel,
all channels are affected.

[RPN]

Message	RPN No. (hex) MSB : LSB	Value/Description
Pitch Bend Sense	00 : 00	0_24 0_24[semitone]

Fine Tune	00 : 01	0_64_127	-100_0_+100[cent]	
Coarse Tune	00 : 02	40_64_88	-24_0_+24[semitone]	**1-7
RPN Null	7F : 7F	no value		

* DataEntry LSB の値は無視されます。
Data Entry LSB value is ignored.

**1-7: マルチモードの Key.Shift パラメータの表示には反映されません。
This is independent from the Key Shift parameter in Multi.
マルチモードの Key.Shift はパート パラメータ チェンジでエディットします。
The Key Shift parameter is changed by Part Parameter Change message.

[NRPN]

Message	NRPN No.(hex) MSB : LSB	Value/Description	
Arpeggio Type	00 : 01	0_19 Type01-20	**1-8
Arpeggio Switch	00 : 02	0_63,64_127 OFF,ON	**1-8
Arpeggio Octave	00 : 03	0_3 1-4[octave]	**1-8
Arpeggio Latch	00 : 04	0_63,64_127 OFF,ON	**1-8
Arpeggio Key Sync	00 : 05	0_63,64_127 OFF,ON	**1-8
Vibrato Rate	01 : 08	0_64_127 -64_0_+63(relative)	
Vibrato Depth	01 : 09	0_64_127 -64_0_+63(relative)	
Vibrato Delay	01 : 0A	0_64_127 -64_0_+63(relative)	
Filt Cutoff	01 : 20	0_64_127 -64_0_+63(relative)	
Color	01 : 21	0_64_127 -64_0_+63(relative)	
EG Attack Time	01 : 63	0_64_127 -64_0_+63(relative)	
EG Decay Time	01 : 64	0_64_127 -64_0_+63(relative)	
EG Release Time	01 : 66	0_64_127 -64_0_+63(relative)	
Drum Filt Cutoff	14 : kk	0_64_127 -64_0_+63(relative)	**1-9
Drum Filt Color	15 : kk	0_64_127 -64_0_+63(relative)	**1-9
Drum EG AttackTime	16 : kk	0_64_127 -64_0_+63(relative)	**1-9
Drum EG Decay Time	17 : kk	0_64_127 -64_0_+63(relative)	**1-9
Drum Coarse Tune	18 : kk	0_64_127 -64_0_+63(relative)	**1-9
Drum Fine Tune	19 : kk	0_64_127 -64_0_+63(relative)	**1-9
Drum Volume	1A : kk	0_127 (absolute)	**1-9
Drum Panpot	1C : kk	0_1_64_127 (relative)	**1-9
		(RND,L63~CNT~R63)	
Drum Rev(C) Send	1D : kk	0_127 (absolute)	**1-9
Drum Cho(D) Send	1E : kk	0_127 (absolute)	**1-9

* DataEntry LSB の値は無視されます。
Data Entry LSB value is ignored.

* kk: Drum Inst No.(0Ch..6Ch : 'C0'..'C8')

* (relative) : プログラムパラメータの効果に加算されます。
Offset is added to programmed parameters.

* (absolute) : プログラムパラメータの効果との掛け算になります。
Multiplies programmed parameters.
127 に設定するとプログラムパラメータで設定した効果になります。
When set to 127, it represents programmed value.

**1-8: アルペジオコントロールはパフォーマンスモードではアッパーパートのMIDI ch. で
マルチモードでは EXCL ch.(Global)で受信します。
When received performance mode on upper part ch.

**1-9: パートモードが Mdrml..Mdrml4 のときにのみ有効。
Effective only the Part mode is set to Mdrml..Mdrml4.

* システム リアルタイム メッセージ
* System Realtime Messages

F8 : MIDI Clock : Global ClockSource=MIDI or PCIF のときに受信。
本体のアルペジオスピードの設定は無視されます。

FA : MIDI Start : アルペジオパターンの始めに戻します。

FB : MIDI Continue

FC : MIDI Stop : アルペジオを停止します。
アルペジオOFFではなくキーを弾く前の状態にします。

* Global ClockSource=INT のときは受信しません。
* Global ClockSource=MIDI のとき MIDI からの受信で動作します。
* Global ClockSource=PCIF のとき PCIF からの受信で動作します。

* ユニバーサル エクスクリューシブ メッセージ
* Universal Exclusive Messages

[Universal System Exclusive Message]
Device Inquiry F0,7E,nn,06,01,F7

```

GM System ON      F0,7E,nn,09,01,F7
Master Volume     F0,7F,nn,04,01,11,mm,F7    mm : 00h..7Fh    0..127
Master Balance    F0,7F,nn,04,02,11,mm,F7    mm : 00h..40h..7Fh 0..64..127
                                           (L63~Center~R63)

```

* nn : receive channel 00h~0Fh = Global Mode EXCL Channel で受信します。
 Receives on the Global Mode EXCL channel.
 7Fh = Global Mode EXCL Channel の値に関係なく受信します。
 (通常は 7Fh で使用してください。)
 Receives regardless of the EXCL Channel.
 (Recommended)

* 11 : value LSB has no effect

[Device Inquiry Reply]

Data(HEX)	Val(HEX)	Description
F0h		Exclusive Status
7Eh		Exclusive Non Realtime
0nh	00h..0Fh	Exclusive Channel (Global Parameter)
06h		Inquiry Message
02h		Identity Reply
42h		KORG ID (MANUFACTURERS ID)
4Ch		N5/N1/N1R ID (FAMILY CODE LSB)
00h		(FAMILY CODE MSB)
**h	05h,0Fh,14h	05h=N5,0Fh=N1,14h=N1R (MEMBER CODE LSB)
00h		(MEMBER CODE MSB)
**h	00h..63h	SYSTEM Minor Version 0..99 (Minor Version LSB)
00h		(Minor Version MSB)
**h	00h..63h	SYSTEM Major Version 0..99 (Major Version LSB)
00h		(Major Version MSB)
F7h		End of Exclusive

* 'Device Inquiry'(F0,7E,nn,06,01,F7) メッセージにより送信されます。

* Transmitted on reception of the 'Device Inquiry' message.

* パート パラメータ チェンジ (受信のみ) *

* Part Parameter Change (Receive Only) *

* format: F0,42,3n,4C,12,a1,a2,a3,dd...,F7 *

* format: F0,42,3n,42,12,a1,a2,a3,dd...,F7 (KORG "NS5R" compatible form) *

* n = EXCL Channel (0..F) *

* a1..a3 = address *

* dd = datas *

N1R/N5/N1 EXCL: F0,42,3n,4C,12,a1,a2,a3,dd...F7

NS5R EXCL : F0,42,3n,42,12,a1,a2,a3,dd...F7

XG EXCL : F0,43,1n,4C,a1,a2,a3...F7

GS EXCL : F0,41,1n,42,12,a1,a2,a3,dd...,ss,F7

n= N1R: EXCL channel (30h..3Fh)

XG: Device No. (10h..1Fh)

GS: Device ID (10h..1Fh)

a1=Address High

a2=Address Mid

a3=Address Low

dd...=Value

ss=check sum --> ((12+a1+a2+a3+dd+...+ss) & 7Fh)=00h

<Part Parameters>

[Address High,Mid,Low]			[Value]	Org	[Description]
[N1R]	[XG]	[GS]			
00,00,7C	00,00,7F		00	00	All Parameter Reset
00,00,7D	00,00,7D		00	00	Drum Setup Reset
00,00,7E	00,00,7E		00	00	XG System ON (N-Reset'Y')
00,00,7F		40,00,7F	00	00	GS Reset (N-Reset'R')
00,00,00	00,00,00	40,00,00	00	00	MasterTune (bit15-12) -100.0..0..+100.0[cent]
.....	.....	..... 01	00-07	04	MasterTune (bit11- 8) (0018..0400..07E8)
.....	.....	..... 02	00-0F	00	MasterTune (bit 7- 4)
.....	.....	..... 03	00-0F	00	MasterTune (bit 3- 0)
00,00,04	00,00,04	40,00,04	00-7F	7F	MasterVolume 0..127
00,00,05	00,00,06	40,00,05	28-40-58	40	MasterKeyShift -24..0..+24[semitone] (Before TG)
00,00,06		40,00,06	01-40-7F	40	MasterBalance L63..CNT..R63
00,00,07			00-7F	--	Effect Bank MSB (**2-3)
.....			00-7F	00	Effect Bank LSB (Not used)
.....			00-7F	00	Effect Number (**2-3)
00,00,0A			00	00	Performance Effect (**2-3)
00,01,00			00-02	00	MIDI Ch. 1 Select Port (A,B,C=EXT)
..... 01			00-02	00	MIDI Ch. 2 Select Port (A,B,C=EXT)
..... 02			00-02	00	MIDI Ch. 3 Select Port (A,B,C=EXT)
..... 0F			00-02	00	MIDI Ch. 16 Select Port (A,B,C=EXT)

00,02,00			00-03	03	Prog 1 Select Port (A,B,C,Ignore)		
..... 01			00-03	03	Prog 2 Select Port (A,B,C,Ignore)		
..... 02			00-03	03	Prog 3 Select Port (A,B,C,Ignore)		
..... 7F			00-03	03	Prog 128 Select Port (A,B,C,Ignore)		
01,nn,00	08,nn,01		00-7F	--	Bank Select MSB	0..127	CC#00
01,nn,01	08,nn,02		00-7F	--	Bank Select LSB	0..127	CC#32
01,nn,02	08,nn,03		00-7F	--	Program Change	1..128	(**2-1)
		40,1x,00	00-7F	--	Bank Select MSB		
		.....	00-7F	--	Program Number	1..128	(**2-1)
01,nn,08			00-1F,20	--	Rx Channel	0~15=A1~A16,16~31=B1~B16, 32=OFF	
	08,nn,04		00-1F,7F	--	Rx Channel	0~15=A1~A16,16~31=B1~B16,127=OFF	
		40,1x,02	00-0F	--	Rx Channel	0~15=A1~A16	
		50,1x,02	00-0F	--	Rx Channel	0~15=B1~B16	
01,nn,09	08,nn,05	40,1x,13	00-01	01	MONO/POLY Assign	0=Mono, 1=Poly	
01,nn,0A	08,nn,07		00-05	--	Part Mode	0=Normal,1=Drum, 2~5=MDrm1~4	
		40,1x,15	00-02	--	Part Mode	0=Normal,1=MDrm1,MDrm2	
		50,1x,15	00-02	--	Part Mode	0=Normal,1=MDrm3,MDrm4	
01,nn,0B	08,nn,08	40,1x,16	28-40-58	40	Coarse Tune	-24~0~+24 [semitone]	(**2-2)
01,nn,0C	08,nn,09	40,1x,17	0-F(MSB)	8	FineTune(0:0~8:0~F:F)	-128~0~127=-12.8[Hz]~+12.7[Hz]	
.....	.....	.....	0-F(LSB)	0			
01,nn,10	08,nn,0B	40,1x,19	00-7F	64	Volume	0~127	CC#07
01,nn,11			00-7F	7F	Expression	0~127	CC#11
01,nn,12	08,nn,0C	40,1x,1A	00-40-7F	40	Vel. Sense Depth	0~64~127	
01,nn,13	08,nn,0D	40,1x,1B	00-40-7F	40	Vel. Sense Offset	0~64~127	
01,nn,14	08,nn,0E	40,1x,1C	00-40-7F	40	Panpot	0=RND,1~127=L63~R63	CC#10 (**2-4)
01,nn,15	08,nn,0F	40,1x,1D	00-7F	00	Note Window Bottom	0~127 = C-1~G9	
01,nn,16	08,nn,10	40,1x,1E	00-7F	7F	Note Window Top	0~127 = C-1~G9	
01,nn,17	08,nn,12	40,1x,21	00-7F	00	Chorus Send	0~127	CC#93
01,nn,18	08,nn,13	40,1x,22	00-7F	28	Reverb Send	0~127	CC#91
01,nn,19	08,nn,15	40,1x,30	00-40-7F	40	Vibrato Frequency	-64~+63	NRPN#1:08(MSB)
01,nn,1A	08,nn,16	40,1x,31	00-40-7F	40	Vibrato Intensity	-64~+63	NRPN#1:09(MSB)
01,nn,1B	08,nn,17	40,1x,37	00-40-7F	40	Vibrato Delay	-64~+63	NRPN#1:10(MSB)
01,nn,1C	08,nn,18	40,1x,32	00-40-7F	40	Filter Cutoff Freq	-64~+63	NRPN#1:32(MSB)
01,nn,1D	08,nn,19	40,1x,33	00-40-7F	40	Color (Resonance)	-64~+63	NRPN#1:33(MSB)
01,nn,1E	08,nn,1A	40,1x,34	00-40-7F	40	VDFA EG Attack Time	-64~+63	NRPN#1:99(MSB)
01,nn,1F	08,nn,1B	40,1x,35	00-40-7F	40	VDFA EG Decay Time	-64~+63	NRPN#1:100(MSB)
01,nn,20	08,nn,1C	40,1x,36	00-40-7F	40	VDFA EG ReleaseTime	-64~+63	NRPN#1:102(MSB)
01,nn,21	08,nn,30	40,1x,03	00-01	01	Rx Pitch Bend SW	0=OFF, 1=ON	
01,nn,22	08,nn,31	40,1x,04	00-01	01	Rx Channel After SW	0=OFF, 1=ON	
01,nn,23	08,nn,32	40,1x,05	00-01	01	Rx Program ChangeSW	0=OFF, 1=ON	
01,nn,24	08,nn,33	40,1x,06	00-01	01	Rx Control ChangeSW	0=OFF, 1=ON	
01,nn,25	08,nn,34	40,1x,07	00-01	01	Rx Poly After SW	0=OFF, 1=ON	
01,nn,26	08,nn,35	40,1x,08	00-01	01	Rx Note ON SW	0=OFF, 1=ON	
01,nn,27	08,nn,36	40,1x,09	00-01	01	Rx RPN SW	0=OFF, 1=ON	
01,nn,28	08,nn,37	40,1x,0A	00-01	01	Rx NRPN SW	0=OFF, 1=ON	
01,nn,29	08,nn,38	40,1x,0B	00-01	01	Rx Modulation SW	0=OFF, 1=ON	
01,nn,2A	08,nn,39	40,1x,0C	00-01	01	Rx Volume	0=OFF, 1=ON	
01,nn,2B	08,nn,3A	40,1x,0D	00-01	01	Rx Panpot SW	0=OFF, 1=ON	
01,nn,2C	08,nn,3B	40,1x,0E	00-01	01	Rx Expression SW	0=OFF, 1=ON	
01,nn,2D	08,nn,3C	40,1x,0F	00-01	01	Rx Hold 1 SW	0=OFF, 1=ON	
01,nn,2E	08,nn,3D	40,1x,10	00-01	01	Rx Portamento SW	0=OFF, 1=ON	
01,nn,2F	08,nn,3E	40,1x,11	00-01	01	Rx Sostenuto SW	0=OFF, 1=ON	
01,nn,30	08,nn,3F	40,1x,12	00-01	01	Rx Soft Pedal SW	0=OFF, 1=ON	
01,nn,31	08,nn,40	40,1x,23	00-01	01	Rx BankSelect SW	0=OFF, 1=ON	
01,nn,32	08,nn,41	40,1x,40	00-40-7F	40	Scale C	-64..+63[cent]	
01,nn,33	08,nn,42	..... 41	00-40-7F	40	Scale C#	-64..+63[cent]	
01,nn,34	08,nn,43	..... 42	00-40-7F	40	Scale D	-64..+63[cent]	
01,nn,35	08,nn,44	..... 43	00-40-7F	40	Scale D#	-64..+63[cent]	
01,nn,36	08,nn,45	..... 44	00-40-7F	40	Scale E	-64..+63[cent]	
01,nn,37	08,nn,46	..... 45	00-40-7F	40	Scale F	-64..+63[cent]	
01,nn,38	08,nn,47	..... 46	00-40-7F	40	Scale F#	-64..+63[cent]	
01,nn,39	08,nn,48	..... 47	00-40-7F	40	Scale G	-64..+63[cent]	
01,nn,3A	08,nn,49	..... 48	00-40-7F	40	Scale G#	-64..+63[cent]	
01,nn,3B	08,nn,4A	..... 49	00-40-7F	40	Scale A	-64..+63[cent]	
01,nn,3C	08,nn,4B	..... 4A	00-40-7F	40	Scale A#	-64..+63[cent]	
01,nn,3D	08,nn,4C	..... 4B	00-40-7F	40	Scale B	-64..+63[cent]	
01,nn,3E	08,nn,59	40,1x,1F	00-5F	10	AC1 Number	CC#0~CC#95	(**2-5)
01,nn,3F	08,nn,60	40,1x,20	00-5F	11	AC2 Number	CC#0~CC#95	(**2-5)
01,nn,40	08,nn,1D	40,2x,00	28-40-58	40	MOD Pitch Control	-24~0~+24[semitone]	
01,nn,41	08,nn,1E	40,2x,01	00-40-7F	40	MOD Filt Control	-64~+63	
01,nn,42	08,nn,1F	40,2x,02	00-40-7F	40	MOD Amp Control	-64~+63	
01,nn,43		40,2x,03	00-40-7F	40	MOD LFO Rate	-64~+63	
01,nn,44	08,nn,20	40,2x,04	00-7F	0A	MOD LFO Pitch Depth	0~127	
01,nn,45	08,nn,21	40,2x,05	00-7F	00	MOD LFO VDF Depth	0~127	
01,nn,46	08,nn,22	40,2x,06	00-7F	00	MOD LFO VDA Depth	0~127	
01,nn,48	08,nn,23	40,2x,10	28-40-58	42	Bend Pitch Control	-24~0~+24[semitone]	RPN#0:0=0~24
01,nn,49	08,nn,24	40,2x,11	00-40-7F	40	Bend Filt Control	-64~+63	
01,nn,4A	08,nn,25	40,2x,12	00-40-7F	40	Bend Amp Control	-64~+63	

01,nn,4B		40,2x,13	00-40-7F	40	Bend LFO Rate	-64~+63	
01,nn,4C	08,nn,26	40,2x,14	00-7F	00	Bend LFO PitchDepth	0~127	
01,nn,4D	08,nn,27	40,2x,15	00-7F	00	Bend LFO VDF Depth	0~127	
01,nn,4E	08,nn,28	40,2x,16	00-7F	00	Bend LFO VDA Depth	0~127	
01,nn,50	08,nn,4D	40,2x,20	28-40-58	40	CAf Pitch Control	-24~0~+24[semitone]	
01,nn,51	08,nn,4E	40,2x,21	00-40-7F	40	CAf Filt Control	-64~+63	
01,nn,52	08,nn,4F	40,2x,22	00-40-7F	40	CAf Amp Control	-64~+63	
01,nn,53		40,2x,23	00-40-7F	40	CAf LFO Rate	-64~+63	
01,nn,54	08,nn,50	40,2x,24	00-7F	00	CAf LFO Pitch Depth	0~127	
01,nn,55	08,nn,51	40,2x,25	00-7F	00	CAf LFO VDF Depth	0~127	
01,nn,56	08,nn,52	40,2x,26	00-7F	00	CAf LFO VDA Depth	0~127	
01,nn,58	08,nn,53	40,2x,30	28-40-58	40	PAf Pitch Control	-24~0~+24[semitone]	
01,nn,59	08,nn,54	40,2x,31	00-40-7F	40	PAf Filt Control	-64~+63	
01,nn,5A	08,nn,55	40,2x,32	00-40-7F	40	PAf Amp Control	-64~+63	
01,nn,5B		40,2x,33	00-40-7F	40	PAf LFO Rate	-64~+63	
01,nn,5C	08,nn,56	40,2x,34	00-7F	00	PAf LFO Pitch Depth	0~127	
01,nn,5D	08,nn,57	40,2x,35	00-7F	00	PAf LFO VDF Depth	0~127	
01,nn,5E	08,nn,58	40,2x,36	00-7F	00	PAf LFO VDA Depth	0~127	
01,nn,60	08,nn,5A	40,2x,40	28-40-58	40	AC1 Pitch Control	-24~0~+24[semitone]	
01,nn,61	08,nn,5B	40,2x,41	00-40-7F	40	AC1 Filt Control	-64~+63	
01,nn,62	08,nn,5C	40,2x,42	00-40-7F	40	AC1 Amp Control	-64~+63	
01,nn,63		40,2x,43	00-40-7F	40	AC1 LFO Rate	-64~+63	
01,nn,64	08,nn,5D	40,2x,44	00-7F	00	AC1 LFO Pitch Depth	0~127	
01,nn,65	08,nn,5E	40,2x,45	00-7F	00	AC1 LFO VDF Depth	0~127	
01,nn,66	08,nn,5F	40,2x,46	00-7F	00	AC1 LFO VDA Depth	0~127	
01,nn,68	08,nn,61	40,2x,50	28-40-58	40	AC2 Pitch Control	-24~0~+24[semitone]	
01,nn,69	08,nn,62	40,2x,51	00-40-7F	40	AC2 Filt Control	-64~0~63	
01,nn,6A	08,nn,63	40,2x,52	00-40-7F	40	AC2 Amp Control	-64~0~63	
01,nn,6B		40,2x,53	00-40-7F	40	AC2 LFO Rate	-64~0~63	
01,nn,6C	08,nn,64	40,2x,54	00-7F	00	AC2 LFO Pitch Depth	0~127	
01,nn,6D	08,nn,65	40,2x,55	00=7F	00	AC2 LFO VDF Depth	0~127	
01,nn,6E	08,nn,66	40,2x,56	00-7F	00	AC2 LFO VDA Depth	0~127	
01,nn,70	08,nn,67		00-01	00	Portamento Switch	0=OFF, 1=ON	
01,nn,71	08,nn,68		00-7F	00	Portamento Time	0~127 (fast~slow)	CC#05
01,nn,72	08,nn,69		00-40-7F	40	Pitch EG Stt. Level	-64~0~63	
01,nn,73	08,nn,6A		00-40-7F	40	Pitch EG Att. Time	-64~0~63	
01,nn,74	08,nn,6B		00-40-7F	40	Pitch EG Rel. Level	-64~0~63	
01,nn,75	08,nn,6C		00-40-7F	40	Pitch EG Rel. Time	-64~0~63	
01,nn,76	08,nn,6D		01-7F	01	Vel. Window Bottom	1~127	
01,nn,77	08,nn,6E		01-7F	7F	Vel. Window Top	1~127	

nn = Part Number
00~1F = Part 01~ Part 32

x = GS Block Number
Type [40,**,**] Type [50,**,**]
0 h= Part 10 0 h= Part 26
1 h= Part 1 1 h= Part 17
2 h= Part 2 2 h= Part 18
.
.
.
9 h= Part 9 9 h= Part 25
A h= Part 11 A h= Part 27
B h= Part 12 B h= Part 28
.
.
.
F h= Part 16 F h= Part 32

- * MOD = Modulation Wheel (CC#01)
- * Bend= Bend Wheel
- * CAf = Channel After Touch
- * PAf = Polyphonic After Touch
- * AC1 = Assignable Controller 1 (MOD.2)
- * AC2 = Assignable Controller 2 (MOD.3)
- * Vel.= Velocity
- * 項目 "Org" は GM System ON 等のリセット命令を受信したときの初期値です。
- * The "Org" column shows the initial values when reset messages (e.g. GM System on) are received.
"---" となっているところはパートリセット命令の種類によって値がことなります。
"---" means the value varies depending on its Part or received messages.
- * Address の項目が "... xx" (xx=00~FF) となっているところは Value 部分を連続に設定できます。
途中のアドレスからの設定も可能です。
The "... xx" (xx = 00..FF) in the Address column means that subsequent addresses can be set in a single message, as well as from any address in the range.
Ex) F0,42,30,42,12,01,00,36,3C,3B,3A,F7 Scale E,E#,F = -4,-5,-6
- * Address の項目が " " となっているところは Value 部分を連続で設定してください。
The " " in the Address column means that subsequent addresses should be set in a single message.
Ex) F0,42,30,42,12,01,00,0C,08,00,F7
- **2-1 取扱説明書 (資料 Voice Name List) 参照。
Refer to Owner's Manual, Voice Name List.

**2-2 Coarse Tune

RPN の Coarse Tune(00:02) と加算された値がパートの Coarse Tune になります。

RPN Coarse Tune setting is added to Part's Coarse Tune.

(RPN の Coarse Tune はマルチモードの Key Shift パラメータの表示には反映されません。)

RPN Coarse Tune does not affect the Multi Mode's Key Shift display.

**2-3

エフェクトバンクの値と設定される

バンクの関係は以下の通りです。

See below for Effect Bank values.

EffectBankMSB	EffectBankName
\$50 (PrgU)	'u'
\$51 (PrgA)	'a'
\$52 (PrgB)	'b'
\$53 (PrgC)	'c'
\$58 (CmbU)	'U'
\$59 (CmbA)	'A'
\$5A (CmbB)	'B'
\$5B (CmbC)	'C'
Others	'G'

**2-4

パンポット "OFF" を設定する場合、以下のように

値を2バイトで設定します。

2 byte value should be sent for Panpot Off.

F0,42,3n,4C(42),12,01,nn,14,11,mm,F7 (11=LSB,mm=MSB)

Panpot	11	mm
Random	\$00	\$00
L63	\$01	\$00
Center	\$40	\$00
R63	\$7F	\$00
OFF	\$00	\$01

Addr = 00,00,0A を受信すると、

'P:---' が指定されます。

'P:---' is selected upon the reception of Addr = 00,00,0A.

**2-5 Assignable Controller 1,2

Assignable Controller 1,2(MOD.2,3) は fiÄ`ÿf で #16,#17 が設定されています。

Assignable Controller No. を #16,#17 以外の値にした場合は

そのコントロールNo. の効果と AC1,2 で >fα ÿされる効果が同時に効きます。

例: AC1 No.=07(CC#7:Volume)にした場合、AC1_LF01_Freq 等は

Bn,07,vv で >fα ÿされ、さらにパートのボリュームもコントロールされます。

The default setting of Assignable Controller 1,2 (Mod.2,3) are CC #16,#17, respectively. If it is set other controller number, the AC1,2's effect will be effective as well as that controller's effect.

ex) If AC1 No. is set to CC #7 (Volume), Bn 07 vv will control AC_LF01_Freq etc., as well as the Part Volume.

<Drum Parameters>

[N1R]	[XG]	[GS]	[Value]	[Description]	
3n,rr,00	3n,rr,00		00-40-7F	Coarse Tune	-64~0~+63[semitone] NRPN#24:rr(MSB)
3n,rr,01	3n,rr,01		00-40-7F	Fine Tune	-64~0~+63[cent] NRPN#25:rr(MSB)
3n,rr,02	3n,rr,02	41,m2,rr	00-7F	Level	0~127 NRPN#26:rr(MSB)
3n,rr,03	3n,rr,03	41,m3,rr	00-7F	Excl Group	0=OFF,1..127
3n,rr,04	3n,rr,04	41,m4,rr	00-40-7F	Panpot	0,1..64..127 (RND,L63..CNT..R63) NRPN#28:rr(MSB)
3n,rr,05	3n,rr,05	41,m5,rr	00-7F	Reverb Send	0..127 NRPN#29:rr(MSB)
3n,rr,06	3n,rr,06	41,m6,rr	00-7F	Chorus Send	0..127 NRPN#30:rr(MSB)
3n,rr,08	3n,rr,08		00-01	Key Assign Mode	0=Single, 1=Multi
3n,rr,09	3n,rr,09	41,m7,rr	00-01	Receive Note OFF	0=OFF, 1=ON
3n,rr,0A	3n,rr,0A	41,m8,rr	00-01	Receive Note ON	0=OFF, 1=ON
3n,rr,0B	3n,rr,0B		00-40-7F	Cutoff	-64..0..+63 NRPN#20:rr(MSB)
3n,rr,0C	3n,rr,0C		00-40-7F	Color	-64..0..+63 NRPN#21:rr(MSB)
3n,rr,0D	3n,rr,0D		00-40-7F	Attack Time	-64..0..+63 NRPN#22:rr(MSB)
3n,rr,0E	3n,rr,0E		00-40-7F	Decay time	-64..0..+63 NRPN#23:rr(MSB)

* m=MDrml..2(0..1)

* n=MDrml..4(0..3)

* rr=note number(0Ch..6Ch='C0'..'C8')

* 初期値は 各ドラムキット、各インストゥルメントで異なります。

* The initial value differ among Drum Kits and Instruments.

<Display>

N1R/N5/N1 EXCL: F0,42,3n,4C,12,a1,a2,a3,dd...F7
 NS5R EXCL : F0,42,3n,42,12,a1,a2,a3,dd...F7
 XG EXCL : F0,43,1n,4C,a1,a2,a3,dd...F7
 GS EXCL : F0,41,1x,45,12,a1,a2,a3,dd...,ss,F7

[N1R]	[XG]	[GS]	[Value]	[Description]	
08,00,00	06,00,00	10,00,00	20-7F	Display Letter 0	(max 32 chars)
..... 01	06,00,01	10,00,01	20-7F	Display Letter 1	
.	
..... 1F	06,00,1F	10,00,1F	20-7F	Display Letter 31	
	07,00,00		00-7F	Display Bitmap Data 0	(16 x 16 dots)
	..... 01		00-7F	Display Bitmap Data 1	
	
	..... 2F		00-7F	Display Bitmap Data 47	

	10,0p,40	00-1F	Display Bitmap Data	0	(16 x 16 dots)
	..... 41	00-1F	Display Bitmap Data	1	
	.	.	.		
	..... 7F	00-1F	Display Bitmap Data	63	
08,00,20		00-7F	Display Bitmap Data	0	(32 x 16 dots)
..... 21		00-7F	Display Bitmap Data	1	
.		.	.		
..... 6F		00-7F	Display Bitmap Data	79	

コルグフォーマットの Display Bitmap Data では 32 x 16 ドットの画面データを一定時間表示します。
 各 Value の bit6-0 が画面のドットに対応します。Value と表示位置の関係は以下のとおりです。
 The Display Bitmap Data displays a 32 x 16 dots bitmapped graphics
 in the LCD for a while. See below for the relation between
 Value and display.

bit	6-----0	6-----0	6-----0	6-----0	6--3
Address	**\$20**	**\$30**	**\$40**	**\$50**	*\$60*
Address	**\$21**	**\$31**	**\$41**	**\$51**	*\$61*
Address	**\$22**	**\$32**	**\$42**	**\$52**	*\$62*
.
.
Address	**\$2D**	**\$3D**	**\$4D**	**\$5D**	*\$6D*
Address	**\$2E**	**\$3E**	**\$4E**	**\$5E**	*\$6E*
Address	**\$2F**	**\$3F**	**\$4F**	**\$5F**	*\$6F*

```

*****
*
*      システム エクスクルーシブ メッセージ
*      System Exclusive Messages
*
*****
[KORG Exclusive Message format]

```

Data(HEX)	Val(HEX)	Description
F0		Exclusive Status
42		KORG ID
3n	30..3F	Exclusive Channel (Global Mode. EXCL Channel 1..16)
ii	4C	Machine ID 4Ch=N1R
dd		Exclusive Data
.		
dd		
F7		End of Exclusive

+-----+		
/	1. Mode Change (Rx)	/
/	format: F0,42,3n,4C,00,rr,F7	/
/	n = EXCL Channel (0..F)	/
/	rr = mode	/
+-----+		
< rr >	<reply>	<Rx sts>
00h. Global Mode	Success/Error	Always
01h. Multi Play Mode	Success/Error	Always
02h. Part Edit Mode	Success/Error	Always
03h. Performance Play Mode	Success/Error	Always
04h. Performance Edit Mode	Success/Error	Always
05h. Combination Edit Mode	Success/Error	Upper Part Select Combi
06h. Program Edit Mode	Success/Error	Upper Part Select Prog/Drum
07h. Drum Edit Mode	Success/Error	Upper Part Select Drum
08h. Effect Edit Mode	Success/Error	Always
+-----+		
/	2. System Status Request (Rx)	/
/	format: F0,42,3n,4C,cc,F7	/
/	n = EXCL Channel (0..F)	/
/	cc = command	/
+-----+		
<cc>	<reply>	<Rx sts>
10h. Mode Request	Mode Change	Always
11h. MAP type Request	MAP Change	Always
1Fh. Capture LCD image	Capture LCD	Always
+-----+		
/	3. MAP Change (Rx)	/
/	format: F0,42,3n,4C,01,rr,F7	/
/	format: F0,42,3n,42,01,rr,F7 (NS5R ID)	/
/	n = EXCL Channel (0..F)	/
/	rr = MAP No.	/
+-----+		
< rr >	<reply>	<Rx sts>
00h. Default(GS/XG) Map	None	Always
01h. 05R/W Map	None	Always
+-----+		
/	4. Dump Request (Rx)	/
/	format: F0,42,3n,4C,cc,F7	/

```

/          n = EXCL Channel (0..F)          /
/          cc = command                      /
+-----+
<cc>                                <Rx reply>          <Rx sts>
20h. Global Dump Request             Global Dump           Always
21h. Current Program Dump Request     Current Program Dump   Prog Edit Mode
22h. Current Combi Dump Request       Current Combi Dump     Combi Edit Mode
23h. Current Drumkit Dump Request     Current Drumkit Dump   Drum Edit Mode
24h. Current Effect Dump Request      Current Effect Dump    Always
25h. Current Perform.Dump Request     Current Performance Dump Always
26h. All Program Dump Request         All Program Dump       Always
27h. All Combination Dump Request     All Combination Dump   Always
28h. All User Drumkit Dump Request    All User Drum Dump     Always
29h. All Effect Dump Request          All Effect Dump        Always
2Ah. All Performance Dump Request     All Multi Part Dump    Always
+-----+

/ 5. Voice Name Dump Request (Rx)      /
/   format: F0,42,3n,4C,2B,rr,F7      /
/       n = EXCL Channel (0..F)      /
/       cc = command                  /
+-----+
<rr> Bank Select
00h: CmbU   04h: PrgU   08h:CmbU Effect 'U'   0Ch:PrgU Effect 'u'
01h: CmbA   05h: PrgA   09h:CmbA Effect 'A'   0Dh:PrgA Effect 'a'
02h: CmbB   06h: PrgB   0Ah:CmbB Effect 'B'   0Eh:PrgB Effect 'b'
03h: CmbC   07h: PrgC   0Bh:CmbC Effect 'C'   0Fh:PrgC Effect 'c'
+-----+

/ 6. Data Dump (Rx/Tx)                /
/   format: F0,42,3n,4C,cc,dd,...,ss,F7 /
/       n = EXCL Channel (0..F)      /
/       cc = command                  /
/       dd = datas (7-8)              /
/       ss = check sum (dd-ss)        /
+-----+
<cc>                                <Rx reply>          <Rx sts>
30h. Global Dump                     Success/Error       Always
31h. Current Program Dump             Success/Error       Prog Edit Mode
32h. Current Combination Dump         Success/Error       Combi Edit Mode
33h. Current Drumkit Dump             Success/Error       Drum Edit Mode
34h. Current Effect Dump              Success/Error       Always
35h. Current Performance Dump         Success/Error       Performance/Multi Mode
36h. All Program Dump                 Success/Error       Always
37h. All Combination Dump             Success/Error       Always
38h. All User Drum Kit Dump           Success/Error       Always
39h. All Effect Dump                  Success/Error       Always
3Ah. All Performance Dump             Success/Error       Always
3Bh. Voice Name Dump                  (Rx only)           Always

```

ss : 全ての dd の値と ss の値を1バイトづつ加算した結果の下位 7bit が 00 になるように ss を求めます。 ss の値も下位 7bit の値(bit7=0)を設定します。
 ss Should be set so that lower 7 bits of the sum of all dd's and ss will be 00. Bit 7 of ss should be 0.

```

[Data Internal Size]
Global Dump                164 byte
Current Program Dump       178 byte
Current CombinationDump 12+(14 * 8) = 124 byte
Current DrumKit Dump      14 * 97inst = 1358 byte
Current Effect Dump        38 byte
Current Perform.Dump      92*16+24+38 = 1534 byte (16part + part common + Effect)
All Program Dump          178 * 100 = 17800byte (100 programs for Bank 'PrgU')
All Combination Dump      124 * 100 = 12400byte (100 combis for Bank 'CmbU')
All User Drum Kit Dump    1358 * 2 = 2716byte (2 kits for User Kit1/2)
All Effect Dump           38 * 2 * 100 = 7600byte (100 * 2 Effects for Bank 'u','U')
All Performance Dump      1534 * 32 = 49088byte (32 Performances)
Voice Name Dump (Prg,Cmb) 10 * 100 = 1000byte
Voice Name Dump (Effect)  8 * 100 = 800byte

```

※ [エクスクルーシブ データ ダンプ] 表参照。
 * Refer the Exclusive Data Dump chart.

dd = data (7-8) means 7bit to 8bit Data Conversion is applied.

DUMP DATA CONVERT
 Internal Data (lset = 8bit x 7Bytes)

----- Original Data (7byte) -----

```

      bit 7 6 5 4 3 2 1 0      7 6 5 4 3 2 1 0      7 6 5 4 3      3 2 1 0      7 6 5 4 3 2 1 0
      +---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
      | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
      +---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
offset byte      7n+0              7n+1              7n+2      ...      7n+5              7n+6

```

----- MIDI Data (7byte to 8byte) -----

```

      bit 7 7 7 7 7 7 7 7      6 5 4 3 2 1 0      6 5 4 3      3 2 1 0      6 5 4 3 2 1 0
      +---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+

```

```

      |0| | | | | | | | |0| | | | | | | | |0| | | | | ... | | | | | |0| | | | | | | |
      +---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
bit 7 of 7n+6,5,4,3,2,1,0
bit 0-6 of 7n+0 7n+2 ... 7n+5 7n+6

```

```

+-----+
/ 7. Write Request (Rx) /
/ format: F0,42,3n,4C,cc,ll,F7 /
/ n = EXCL Channel (0..F) /
/ cc = command /
/ ll = destination No. /
+-----+

```

<cc>	<Rx reply>	<Rx sts>
41h. Program Write	Success/Error	Prog Edit Mode
42h. Combination Write	Success/Error	Combi Edit Mode
43h. Drum Write	Success/Error	Drum Edit Mode
44h. Program Effect('u') Write	Success/Error	Effect Edit Mode
45h. Combination Effect('U') Write	Success/Error	Effect Edit Mode
46h. Performance Write	Success/Error	Performance Mode

```

+-----+
/ 8. Exclusive Dump Reply (Tx) /
/ format: F0,42,3n,4C,0E,rr,dd,F7 /
/ n = EXCL Channel (0..F) /
/ rr = reply answer /
/ dd = received EXCL command No. /
+-----+

```

<rr>	<Tx sts>
00h. Success END	Dump Receive Success
01h. Checksum Error	Receive Dump/KORG Frme Draw Data
02h. Invalid conditions	Write Protect. etc..
03h. Invalid value	Invalid Value

```

+-----+
/ 9. Part Parameter Change (Rx) /
/ format: F0,42,3n,4C,12,a1,a2,a3,dd,...F7 /
/ n = EXCL Channel (0..F) /
/ a1..a3 = adress /
/ dd = datas /
+-----+

```

※ [パート パラメータ チェンジ] 表参照。

* Refer the Part Parameter Change chart.

```

+-----+
/ 10. Edit Parameter Change (Rx) /
/ format: F0,42,3n,4C,08,ll,mm,dd,ee,F7 /
/ n = EXCL Channel (0..F) /
/ ll = parameter No. LSB /
/ mm = parameter No. MSB /
/ dd = data LSB (value bit0.. 6) /
/ ee = data MSB (value bit7..13) /
+-----+

```

<Receive/Transmit in Edit Mode>

Multi Mode	: Multi Utility Control
Global Mode	: Global Parameter Change
Program Edit Mode	: Program Parameter Change
Combination Edit Mode	: Combination Parameter Change
Drumkit Edit Mode	: Drumkit Parameter Change
Effect Edit Mode	: Effect Parameter Change

※ [エディット パラメータ チェンジ] 表参照。

* Refer the Edit Parameter Change chart.

```

+-----+
/ 11. LCD BackLight Color (Rx) /
/ format: F0,42,3n,4C,7D,vv,F7 /
/ n = EXCL Channel (0..F) /
/ vv = Color (0=Green, 1=Orange) /
+-----+

```

<rr>		<Rx sts>
00h.	BackLight Green	Always
01h.	BackLight Orange	Always

```

+-----+
/ 12. Remote Switch (Rx) /
/ format: F0,42,3n,4C,7E,kk,vv,F7 /
/ n = EXCL Channel (0..F) /
/ kk = SW No. /
/ vv = value (00=OFF, 01=ON) /
+-----+

```

<kk>		<kk>	
00h	PERFORM/MULTI	09h	<< PAGE/PART
01h	GLOBAL	0Ah	PAGE/PART >>
02h	DEMO (PERFORM+GLOBAL)	0Bh	LAYER/SPLIT
03h	EDIT/ENTER	0Ch	PORTA.SW
04h	EXIT/PFRM.SEL	0Dh	ARPEGGIO
05h	DEC-	0Eh	COMBI/Compare
06h	INC+	0Fh	PROG/Write
07h	<< CURSOR	10h	SELECT
08h	CURSOR >>	11h	INC + DEC

```
<kk>
12h ENTER + NoteON 00h_7Fh(note no.)
13h ENCODER 00h_3Fh,40h_7Fh (0_63,-64_-1)
```

※N5/N1と同じIDですがパネルSWが違うので内容が異なります。

```
+-----+
/ 13. Capture LCD Data (Tx) /
/ format: F0,42,3n,4C,7F,dd...,ss,F7 /
/ n = EXCL Channel (0..F) /
/ dd = datas (7-8) 720byte -> 823byte /
/ ss = check sum (((dd+...+ss)*(-1)) & 7Fh) /
+-----+
Reply 'Capture LCD image request' (F0,42,3n,4C,1F,F7)
```

LCD image(144*40 dot) (144*40)[dot]/8[bit]=720byte image
Each byte of bit7 is left bit, bit0 is right bit.

```
+-----+
Line 1 offset |000h,001h,002h. .... 010h,011h|
Line 2 offset |012h,013h,014h. .... 010h,023h|
.
.
Line39 offset |2ACh,2ADh,2AEh, .... 2BCh,2BDh|
Line40 offset |2BEh,2BFh,2C0h, .... 2CEh,2CFh|
+-----+
```

```
+-----+
/ 14. 05R/W Multi SetUp(Compatible) (Rx) /
/ format: F0,42,3n,36,55,00,dd...,F7 /
/ n = EXCL Channel (0..F) /
/ dd = data (7-8) 29byte -> 34byte /
+-----+
```

```
+-----+
Multi Setup Dump(05R/W) <reply> <Rx sts>
None Multi Mode
*****
*
* エディット パラメータ チェンジ
* Edit Parameter Change
*
*****
Rx Format(hex): F0,42,3n,4C,08,11,mm,dd,ee,F7
n = EXCL Channel (0..F)
11 = parameter No. LSB
mm = parameter No. MSB
dd = data LSB (value bit0.. 6)
ee = data MSB (value bit7..13)
```

[[Global Mode - Edit Parameter Change / Data Dump]]
<Parameter No.(MSB) = 0>

ParamNo.	offset	name	value	description
0	0	PC/IF BPS	0,1	0=31.25, 1=38.4[bps]
1	1	Bank Map Type	0,1	0=XG/GS, 1=05R/W
2	2	Exclusive Channel	0..15	Channel 1..16
3	3(bit0)	Prog MemProtect	0,1	0=OFF, 1=ON
4	3(bit1)	Combi MemProtect	0,1	0=OFF, 1=ON
5	3(bit2)	DrumKit MemProtect	0,1	0=OFF, 1=ON
6	3(bit3)	Effect MemProtect	0,1	0=OFF, 1=ON
7	3(bit5)	PC/IF setting	0,1	0=Native, 1=Emulate
8	4(bit0)	GM_ON Back Color	0,1	0=Green, 1=Orange
9	4(bit1)	GS_Reset Back Color	0,1	0=Green, 1=Orange
10	4(bit2)	XG_ON Back Color	0,1	0=Green, 1=Orange
11	5(bit0)	Receive GM_ON SW	0,1	0=OFF, 1=ON
12	5(bit1)	Receive GS_Reset SW	0,1	0=OFF, 1=ON
13	5(bit2)	Receive XG_ON SW	0,1	0=OFF, 1=ON
	6	(dummy)		
	7	(dummy)		
14	8	LCD contrast	0..31	1..32
	9	(dummy)		
15	10-11	Master Tune	018h~400h~7E8h	-100.0~0~+100.0[cent]
16	12	Master Key Shift	-24~0~+24	-24~0~+24[semitone]
17	13	Clock Source	0/1/2	Internal/MIDI/HOST
18	14	Arpeggio OUT	0,1	0=OFF, 1=ON
19	15(bit0)	Rx MIDI Prog Change	0,1	0=OFF, 1=ON
20	15(bit1)	Rx MIDI Aftertouch	0,1	0=OFF, 1=ON
21	15(bit2)	Rx MIDI ControlChange	0,1	0=OFF, 1=ON
22	15(bit3)	Rx MIDI Exclusive	0,1	0=OFF, 1=ON
23	16	Single Ch.Layer/Split	0,1	0=OFF, 1=ON
24	17	Velocity Curve	1~8	
25	18	Aftertouch Curve	1~8	
(N5)	19	Damper Pedal Polarity	0,1	0='-' 1='+'
(Part)	20-35	Channel Select Port	0/1/2	PortA/PortB/Ext
(Part)	36-163	Program No. Select Port	0/1/2/3	PortA/PortB/Ext/Ignore

*(N5): N5/N1用パラメータ。N1Rは無視します。受信した値はDump OUTまで保存します。

*(Part): パートパラメータチェンジでエディットします。
Edited with Part Parameter Change messages.

[[Effect Edit Mode. Edit Parameter Change]]

Parameter No.(MSB)	name
0	Effect Common Parameter
1	Effect 1 Parameter
2	Effect 2 Parameter

< Effect Common (Parameter No.MSB = 0) >

ParameterNo.(LSB)	name	value	description	
0..7	Effect Name	20h..7Fh		
8	Effect 1 Type	0,1..48	OFF,1..48	**
9	Effect 2 Type	0,1..48	OFF,1..48	**
10	Effect 1 OFF/ON	0,1	OFF,ON	
11	Effect 2 OFF/ON	0,1	OFF,ON	
12	Out-3 Pan(seri,para1/2)	0,1..101	OFF,R..L	
13	Out-4 Pan(seri,para1/2)	0,1..101	OFF,R..L	
14	Out-1 Level L(para3)	0..9		
15	Out-1 Level R(para3)	0..9		
16	Out-2 Level L(para3)	0..9		
17	Out-2 Level R(para3)	0..9		
18	Effect Placement	0..5		

** 取扱説明書（エフェクトパラメータ）参照。
See Owner's Manual, Effect Parameters.

< Effect 1 Parameter (Parameter No.MSB=1) >

ParameterNo.(LSB)	name	value	description
0	Dynamic Mod Source	0..6	NONE,MOD.1,MOD.2,MOD.3 AFTR.T, VDA-EG
1	Dynamic Mod Depth	-15..15	
2	DRY:EFF Balance 1	0..100	DRY..EFF (Fx:1..48)
3	DRY:EFF Balance 2	0..100	DRY..EFF (Fx:40..43,46,47)
4	Parameter 1		
5	Parameter 2	(Cf. Effect Edit Mode -	
6	Parameter 3	Edit Parameter Change)	
7	Parameter 4		
8	Parameter 5		
9	Parameter 6		
10	Parameter 7		
11	Parameter 8		

< Effect 2 Parameter (Parameter No.MSB=2) >

ParameterNo.(LSB)	name	value	description
0			
1	(same as Effect 1 Parameters)		
11			

[[DrumKit Edit Mode - Edit Parameter Change]]

Parameter No.(MSB)	Drum Kit Inst Note							
	C0~	C1~	C2~	C3~	C4~	C5~	C6~	C7~ C8~
C	12	24	36	48	60	72	84	96 108
C#	13	25	37	49	61	73	85	97 -
D	14	26	38	50	62	74	86	98 -
D#	15	27	39	51	63	75	87	99 -
E	16	28	40	52	64	76	88	100 -
F	17	29	41	53	65	77	89	101 -
F#	18	30	42	54	66	78	90	102 -
G	19	31	43	55	67	79	91	103 -
G#	20	32	44	56	68	80	92	104 -
A	21	33	45	57	69	81	93	105 -
A#	22	34	46	58	70	82	94	106 -
B	23	35	47	59	71	83	95	107 -

ParamNo.(LSB)	name	description
0	Instrument No.	0..285 'Fat Kick'...'Metronome2'
1	Coarse Tune	-64..+63[Semitone]
2	Fine Tune	-64..+63[Cent]
3	Level	0..127
4	Exclusive Group	0=OFF, 1..127=Group No.
5	Note ON Switch	0=OFF 1=ON
6	Note OFF Switch	0=OFF 1=ON
7	Assign Mode	0,1 Singl, Multi
8	Relative Cutoff	-64..63
9	Relative Color	-64..63
10	Rel Attack Time	-64..63
11	Rel Decay Time	-64..63
12	Panpot	0,1-64-127,128 RND,L63..CNT..R63,OFF
13	Reverb Send(C-send)	0..127

14 Chorus Send(D-send) 0..127

[[Program Edit Mode - Edit Parameter Change/Data Dump]]

Parameter No.(MSB)	name
0	Program Common Parameter
1	OSC 1 Parameter
2	OSC 2 Parameter

<Program Common Parameter (ParamNo.MSB = 0) >

ParameterNo.(LSB)	name	offset	value	description
0	Program Name	0	20h..7Fh	ASCII character
1				
2				
3				
4				
5				
6				
7				
8				
9	Program Name	9	20h..7Fh	ASCII character
10	OSC Mode	10	0..2	0:Single 1:Double 2:Drum
11	Effect Bank	11	0..8	
12	Effect Number	12	0..127	
13	Mono/Poly	13	0,1	0:Mono 1:Poly
14	Portamento SW	14	0,1	0:OFF 1:ON
15	Portamento Time	15	0..127	0:OFF,1(Fast)..127(Slow)
Controller				
16	VDF by Bender	16	-128..0..127	Cutoff by Bend Wheel
17	VDF LFO by MOD	17	0..127	Cutoff LFO by ModWheel
18	Bender by After	18	-24..0..24	BendRange by Aftertouch
19	VDA by After	19	-128..0..127	VDA Level by Aftertouch
20	VDF by After	20	-128..0..127	Cutoff by Aftertouch
21	VDF LFO by Aft	21	0..127	Cutoff LFO by After

** Effect Bank

value	name	description
0	'U'	for 'CmbU' Bank voice (User Fx Bank2)
1	'A'	for 'CmbA' Bank voice
2	'B'	for 'CmbB' Bank voice
3	'C'	for 'CmbC' Bank voice
4	'u'	for 'PrgU' Bank voice (User Fx Bank1)
5	'a'	for 'PrgA' Bank voice
6	'b'	for 'PrgB' Bank voice
7	'c'	for 'PrgC' Bank voice
8	'G'	for GM/XG/GS/Drum Bank voice

<Program OSC1 Parameter (ParamNo.MSB = 1) >

ParamNo.(LSB)	name	offset	value	description
Oscillator 1				
0	MultiSound No.	22(MSB) 23(LSB)	0..527	
1	Octave	24	0..3 (-24,-12,+0,+12)	`32, `16, `8, `4
2	OSC Level	25	0..127	
3	Coarse Tune	26	-12..+12 [semitone]	
4	Fine Tune	27	-99..+99 [cent]	
5	Pitch Slope	28	-10..+20	-1.0 .. +2.0 step 0.1
6	Vel Win Bottom	29	1..127	
7	Vel Win Top	30	1..127	
8	OSC Delay Start	31	0..127	
Pitch MG				
9	Wave Form	32	0.. 5	TRI, SawUp, SawDn, Sqr1, Sqr2, Rnd
10	Frequency	33	0..127	
11	Delay	34	0..127	
12	FadeIn	35	0..127	
13	Intensity	36	-128..127	
Pitch EG				
14	Intensity	37	-128..127	Intensity by Velocity Sense
15	Level VelSense	38	-128..127	Level by Velocity Sense
16	Time VelSense	39	-128..127	Time by Velocity Sense
17	Start Level	40	-128..127	Pitch EG Start Level
18	Attack Time	41	0..127	Pitch EG Attack Time
19	Attack Level	42	-128..127	Pitch EG Attack Level
20	Decay Time	43	0..127	Pitch EG Decay Time
21	Release Time	44	0..127	Pitch EG Release Time
22	Release Level	45	-128..127	Pitch EG Release Level
VDF MG				
23	Wave Form	46	0.. 5	TRI, SawUp, SawDown, Sqr1, Sqr2, Random
24	Frequency	47	0..127	
25	Delay	48	0..127	

26	FadeIn	49	0..127	
27	Intensity	50	-128..127	
VDF/VDF Keyboard Track				
28	VDF Cutoff	51	0..127	Cutoff Fc
29	Center Key	52	0..127	C-1 .. G9
30	Tracking Mode	53	0.. 3	OFF,LOW,HIGH,ALL
31	Fc Intensity	54	-128..127	Cutoff Tracking Intensity
32	EG Time	55	-128..127	VDF EGTime Tracking Intensity
33	Att_Time Sw/Pol	56(bit0,4)	0,1,2	0=OFF,1=ON+,2=ON- (0:OFF/ON, 4:+/-)
34	Dcy_Time Sw/Pol	56(bit1,5)	0,1,2	0=OFF,1=ON+,2=ON- (1:OFF/ON, 5:+/-)
35	Slp_Time Sw/Pol	56(bit2,6)	0,1,2	0=OFF,1=ON+,2=ON- (2:OFF/ON, 6:+/-)
36	Rel_Time Sw/Pol	56(bit3,7)	0,1,2	0=OFF,1=ON+,2=ON- (3:OFF/ON, 7:+/-)
Color				
37	Intensity	57	0..127	
38	Velocity Sense	58	-128..127	
VDF EG				
39	Intensity	59	-128..127	VDF EG Intensity
40	IntVelSense	60	-128..127	VDF EG Intensity by Velocity
41	TimeVelSense	61	0..127	VDF EG Time by Velocity
42	Att_Time Sw/Pol	62(bit0,4)	0,1,2	0=OFF,1=ON+,2=ON- (0:OFF/ON, 4:+/-)
43	Dcy_Time Sw/Pol	62(bit1,5)	0,1,2	0=OFF,1=ON+,2=ON- (1:OFF/ON, 5:+/-)
44	Slp_Time Sw/Pol	62(bit2,6)	0,1,2	0=OFF,1=ON+,2=ON- (2:OFF/ON, 6:+/-)
45	Rel_Time Sw/Pol	62(bit3,7)	0,1,2	0=OFF,1=ON+,2=ON- (3:OFF/ON, 7:+/-)
46	Attack Time	63	0..127	VDF EG Attack Time
47	Attack Level	64	-128..127	VDF EG Attack Level
48	Decay Time	65	0..127	VDF EG Decay Time
49	Break Point	66	-128..127	VDF EG Break Point
50	Slope Time	67	0..127	VDF EG Slope Time
51	Sustain Level	68	-128..127	VDF EG Sustain Level
52	Release Time	69	0..127	VDF EG Release Time
53	Release Level	70	-128..127	VDF EG Release Level
VDA MG				
54	Wave Form	71	0.. 5	TRI,SawUp,SawDown,Sqr1,Sqr2,Randm
55	Frequency	72	0..127	
56	Delay	73	0..127	
57	FadeIn	74	0..127	
58	Intensity	75	-128..127	
VDA Keyboard Track				
59	Center Key	76	0..127	C-1 ~ G9
60	Tracking Mode	77	0.. 3	OFF,LOW,HIGH,ALL
61	Amp Intensity	78	-128..127	Amp Tracking Intensity
62	EG Time	79	-128..127	VDA EGTime Tracking Intensity
63	Att_Time Sw/Pol	80(bit0,4)	0,1,2	0=OFF,1=ON+,2=ON- (0:OFF/ON, 4:+/-)
64	Dcy_Time Sw/Pol	80(bit1,5)	0,1,2	0=OFF,1=ON+,2=ON- (1:OFF/ON, 5:+/-)
65	Slp_Time Sw/Pol	80(bit2,6)	0,1,2	0=OFF,1=ON+,2=ON- (2:OFF/ON, 6:+/-)
66	Rel_Time Sw/Pol	80(bit3,7)	0,1,2	0=OFF,1=ON+,2=ON- (3:OFF/ON, 7:+/-)
VDA EG				
67	LevelVelSense	81	-128..127	EG Level by Velocity
68	TimeVelSense	82	-128..127	VDA EG Time by Velocity
69	Att_Time Sw/Pol	83(b0,4)	0,1,2	0=OFF,1=ON+,2=ON- (0:OFF/ON, 4:+/-)
70	Dcy_Time Sw/Pol	83(b1,5)	0,1,2	0=OFF,1=ON+,2=ON- (1:OFF/ON, 5:+/-)
71	Slp_Time Sw/Pol	83(b2,6)	0,1,2	0=OFF,1=ON+,2=ON- (2:OFF/ON, 6:+/-)
72	Rel_Time Sw/Pol	83(b3,7)	0,1,2	0=OFF,1=ON+,2=ON- (3:OFF/ON, 7:+/-)
73	Attack Time	84	0..127	VDA EG Attack Time
74	Attack Level	85	0..127	VDA EG Attack Level
75	Decay Time	86	0..127	VDA EG Decay Time
76	Break Point	87	0..127	VDA EG Break Point
77	Slope Time	88	0..127	VDA EG Slope Time
78	Sustain Level	89	0..127	VDA EG Sustain Level
79	Release Time	90	0..127	VDA EG Release Time
Effect Parameter				
80	Effect A/B pan	91	0,1..64..127,128	RND,L63..CNT..R63,OFF
81	Effect C send	92	0..127	
82	Effect D send	93	0..127	
Controller				
83	Pitch Bend	94	-24..0..+24	Pitch Bend Range by Bend Wheel
		95		(dummy byte)
84	Pitch LFO MOD	96	0..127	Pitch LFO by Modulation Wheel
85	P.LFO Rate MOD	97	0..127	Pitch LFO Rate by Mod Wheel
86	Pitch LFO Aft	98	0..127	Pitch LFO by Aftertouch
87	P.LFO Rate Aft	99	0..127	Pitch LFO Rate by Aftertouch

<Program OSC2 Parameter (ParamNo.MSB = 2) >

Oscillator 2				
ParamNo.(LSB)	name	offset	value	description
0		100		
.		.	(same as OSC 1 Parameters)	
.		.		
87		177		

[[Combination Edit Mode - Edit Parameter Change]]

Parameter No.(MSB)	name
0	Comination Common
1	Timbre 1
2	Timbre 2
3	Timbre 3
4	Timbre 4
5	Timbre 5
6	Timbre 6
7	Timbre 7
8	Timbre 8

<Combination Common (ParamNo.MSB = 0) >

Parameter No. (LSB)	name	value	description
0	Combination Name	20h..7Fh	ASCII character
.	.	.	.
9	Combination Name	20h..7Fh	ASCII character
10	Effect Bank	0..8	**
11	Effect Number	0..127	

** Effect Bank. (Cf. Program Edit Mode - Edit Parameter Change)

<Combination Timbre (ParamNo.MSB = 1~8) >

Parameter No. (LSB)	name	value	description
0	Bank No.	0..74	**
1	Program No.	0..127 (Cf. Voice Name List)	
2	Volume	0..127	
3	Panpot	0,1..64..127,128	
4	Reverb Send	0..127	
5	Chorus Send	0..127	
6	Note Win Bottom	0..127	
7	Note Win Top	0..127	
8	Vel Win Bottom	1..127	
9	Vel Win Top	1..127	
10	Transpose	-24~0~+24 (E8h~40h~18h)[semitone]	
11	Detune	-50~0~+50 (CEh~40h~32h)[cent]	
12	Note ON/OFF Sw	0,1 0=OFF 1=ON	
13	CntrolChange Sw	0,1 0=OFF 1=ON	
14	Pitch Bend Sw	0,1 0=OFF 1=ON	
15	After Touch Sw	0,1 0=OFF 1=ON(Channl/Poly)	
16	Damper Sw	0,1 0=OFF 1=ON	
17	Portamento Sw	0,1 0=OFF 1=ON	

** Parameter No.(LSB) = 0 : Bank No.

No.	Bank Name
0 .. 9	PrgU, PrgA, PrgB, PrgC, GM-b, GM-a, r:01, r:02, r:03, r:04
10 ..19	r:05, r:06, r:07, r:08, r:09, r:10, r:11, r:16, r:17, r:18
20 ..29	r:19, r:24, r:25, r:26, r:32, r:33, r:40, r:CM, y:01, y:03
30 ..39	y:06, y:08, y:12, y:14, y:16, y:17, y:18, y:19, y:20, y:24
40 ..49	y:25, y:27, y:28, y:32, y:33, y:34, y:35, y:36, y:37, y:38
50 ..59	y:39, y:40, y:41, y:42, y:43, y:45, y:64, y:65, y:66, y:67
60 ..69	y:68, y:69, y:70, y:71, y:72, y:96, y:97, y:98, y:99, y100
70 ..74	y101, ySFX, yDr2, rDrm, kDrm

[[Multi Mode - Edit Parameter Change]]

<Parameter No.(MSB) = 0>

ParamNo.(LSB)	name	value	description
0	Change Performance	0..31	Performance Number
1	Change Multi Part	0..31	Part Number(Part1..32)

[[Performance Play Mode - Edit Parameter Change]]

<Parameter No.(MSB) = 0>

ParamNo.(LSB)	name	value	description
---------------	------	-------	-------------

0	Change Performance	0..31	Performance Number	
1	Change Upper Part	0..15	Part Number(Part1..16)	
2	Change Lower Part	0..15	Part Number(Part1..16)	
3	Change KNOB Select	0,1	0=Default, 1=Assign, 2=Arpeggio	
4	Octave	-2,-1,0,1,2	-2,-1,0,1,2[octave]	
5	Single/Layer/Split	0..2	Single/Layer/Split	
6	Split Point	21..108	A0..C8	
7	Arp.SW	0,1	OFF/ON	
8	Arp.Latch&KeySync	0,1,2,3	OFF,Latch,K_Sync,Latch+K_Sync	
9	Arp.Pattern	0..19	(see following table)	**
10	Arp.Octave	1..4	1..4[octave]	
11	Arp.Speed	40..240	tempo [beet/minute]	

**(Arpeggio Pattern)

```

0:"UP      " 5:"ARP 1  " 10:"ARP 6  " 15:"B-JAZZ  "
1:"DOWN    " 6:"ARP 2  " 11:"B-TECHNO" 16:"D-TECHNO"
2:"ALT 1   " 7:"ARP 3  " 12:"B-DANCE  " 17:"D-JUNGLE"
3:"ALT 2   " 8:"ARP 4  " 13:"B-FUNK  " 18:"D-FUNK  "
4:"RANDOM   " 9:"ARP 5  " 14:"B-SOUL  " 19:"D-R&B  "

```

[Performance Edit Mode - Edit Parameter Change]

<Parameter No.(MSB) = 0>

ParamNo. (LSB)	name	value	description	
0	Master Volume	0..127		
1	Master Balance	1..64..127	L63..CNT..R63	
2	Change Upper Part	1..16	Part Number(Part1..16)	
3	Change Lower Part	1..16	Part Number(Part1..16)	
4	Split Point	21..108	A0..C8	
5	KNOB 1 Assign	0..110	(see following table)	**
6	KNOB 2 Assign	0..110	(see following table)	**
7	KNOB 3 Assign	0..110	(see following table)	**
8	KNOB 4 Assign	0..110	(see following table)	**
(N5)	Mod Wheel Assign	0..110	(see following table)	**
(N5)	Exp.Pedal Assign	0..110	(see following table)	**
11	Damper Pedal Assign	0..2	(see following table)	**
12	Arp.Sort	0,1	OFF/ON	
13	Arp.Step Base	0..7	(see following table)	**
14	Arp.Gate Time	1..101	1..100[%], 101=Step	
15	Arp.Velocity	1..127,128,129	1~127, 128=Key, 129=Step	
16	Arp.Zone	1..3	Lower/Upper/All	
17	Arp.Swing	-99..+99	-99..+99[%]	
18	Octave	-2,-1,0,+1,+2	[octave]	

*(N5):N5/N1 用パラメータ。N 1 Rは無視します。受信した値は Dump OUT まで保存します。

SW Pedal Assign は 0

**(KNOB1-4 assign, Mod Wheel assign, Exp.Pedal assign)

value	name	MIDI Controll change No.
0	OFF	
1	Attack Time	#73
2	Release Time	#72
3	Decay Time	#75
4	VDF Cutoff	#74
5	Fx. Dynamic Mod	#12
6	Balance	#8
7	Panpot	#10 (without 'RND','OFF')
8	Portamento Time	#5
9	Effect 1 Send	#91
10	Effect 2 Send	#93
11	Volume	#7
12	Expression	#11
13	AssignControl-1	#16
14	AssignControl-2	#17
15	CC#0	#0
16	CC#1	#1
.	.	.
.	.	.
109	CC#94	#94
110	CC#95	#95

**(Damper Pedal Assign)

```

0 Upper + Lower Damper
1 Lower Damper
2 Upper Damper

```

**(Arp.Step Base)

```

0 1/4
1 1/4 triplet
2 1/8
3 1/8 triplet
4 1/16

```

5 1/16 triplet

--NOTE-----

<Note Number Table>

	C-1~	C0~	C1~	C2~	C3~	C4~	C5~	C6~	C7~	C8~	C9~	Note
C	0	12	24	36	48	60	72	84	96	108	120	C
C#	1	13	25	37	49	61	73	85	97	109	121	C#
D	2	14	26	38	50	62	74	86	98	110	122	D
D#	3	15	27	39	51	63	75	87	99	111	123	D#
E	4	16	28	40	52	64	76	88	100	112	124	E
F	5	17	29	41	53	65	77	89	101	113	125	F
F#	6	18	30	42	54	66	78	90	102	114	126	F#
G	7	19	31	43	55	67	79	91	103	115	127	G
G#	8	20	32	44	56	68	80	92	104	116	---	G#
A	9	21	33	45	57	69	81	93	105	117	---	A
A#	10	22	34	46	58	70	82	94	106	118	---	A#
B	11	23	35	47	59	71	83	95	107	119	---	B

61key(N5) C2(36) .. C7(96)
 88key(N1) A0(21) .. C8(108)

[[Effect Edit Mode - Edit Parameter Change / Data Dump]] (48 Type)

Type 01:Hall, 02:Ens.Hall, 03:ConcertHL

Offs	ParaNo.	name	value	data(Hex)
0	4	Reverb Time	0.2..9.9[sec]	00..61
2	6	High Damp	0..99[%]	00..63
3	7	Pre Delay	0..200[ms]	00..C8
4	8	E.R Level	0..99	00..63
6	10	EQ.High	-12..+12[dB]	F4..0C
7	11	EQ.Low	-12..+12[dB]	F4..0C

Type 04:Room, 05:LargeRoom, 06:LiveStage

Offs	ParaNo.	name	value	data(Hex)
0	4	Reverb Time	0.2..4.9[sec]	00..2F
2	6	High Damp	0..99[%]	00..63
3	7	Pre Delay	0..200[ms]	00..C8
4	8	E.R Level	0..99	00..63
6	10	EQ.High	-12..+12[dB]	F4..0C
7	11	EQ.Low	-12..+12[dB]	F4..0C

Type 07:WetPlate, 08:DryPlate, 09:Spring

Offs	ParaNo.	name	value	data(Hex)
0	4	Pre Delay	0..200[ms]	00..C8
2	6	E.R Level	1..10	01..0A
3	7	Reverb Time	00..99	00..63
4	8	High Damp	0..99[%]	00..63
6	10	EQ.Low	-12..+12[dB]	F4..0C
7	11	EQ.High	-12..+12[dB]	F4..0C

Type 10:EarlyRef1, 11:EarlyRef2, 12:EarlyRef3

Offs	ParaNo.	name	value	data(Hex)
0	4	E.R Time	100..800	00..46
1	5	Pre Delay	0..200[ms]	00..C8
6	10	EQ.High	-12..+12[dB]	F4..0C
7	11	EQ.Low	-12..+12[dB]	F4..0C

Type 13:StereoDelay, 14:CrossDelay

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime L-Lo	000..500	00..1F4
1	5	DelayTime L-Hi		
2	6	FeedBack	-99..+99	9D..63
3	7	High Damp	0..99[%]	00..63
4	8	DelayTime R-Lo	000..500	00..1F4
5	9	DelayTime R-Hi		
6	10	EQ.High	-12..+12[dB]	F4..0C
7	11	EQ.Low	-12..+12[dB]	F4..0C

Type 15:DualDelay

Offs	ParaNo.	name	value	data(Hex)
------	---------	------	-------	-----------

0	4	DelayTime L-Lo	000..500	00..1F4
1	5	DelayTime L-Hi		
2	6	FeedBack L	-99..+99	9D..63
3	7	High Damp L	0..99[%]	00..63
4	8	DelayTime R-Lo	000..500	00..1F4
5	9	DelayTime R-Hi		
6	10	FeedBack R	-99..+99	9D..63
7	11	High Damp R	0..99[%]	00..63

Type 16:M.TapDly1, 17:M.TapDly2, 18:M.TapDly3

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime 1-Lo	000..500	00..1F4
1	5	DelayTime 1-Hi		
2	6	DelayTime 2-Lo	000..500	00..1F4
3	7	DelayTime 2-Hi		
4	8	FeedBack	-99..+99	9D..63
6	10	EQ.Low	-12..+12[dB]	F4..0C
7	11	EQ.High	-12..+12[dB]	F4..0C

Type 19:Chorus1, 20:Chorus2

Offs	ParaNo.	name	value	data(Hex)
0	4	Mod Depth	00..99	00..63
1	5	Mod Speed	(*1)	00..D8
2	6	MG Status	(*2)	----
4	8	Delay Time	00..200	00..C8
6	10	EQ.High	-12..+12[dB]	F4..0C
7	11	EQ.Low	-12..+12[dB]	F4..0C

*1 00h..63h : 0.03..3.00 (0.03 Step)
 64h..C7h : 3.1...13.0 (0.1 Step)
 C8h..D8h : 14 ...30 (1 Step)

*2 bit0=Mod.WaveForm(0:SIN,1:TRI)
 bit1=Phase(1:180[deg]-fixed)
 bit2=Mod.WaveShape(0:Chorus)

Type 21:Quad.Chorus, 22:XOverChorus

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime L	000..250	00..FA
1	5	DelayTime L	000..250	00..FA
2	6	Mod Speed	01..99	01..63
3	7	Mod Depth	00..99	00..63
4	8	Mod WaveForm	*3	EB..14
6	10	EQ.Low	-12..+12[dB]	F4..0C
7	11	EQ.High	-12..+12[dB]	F4..0C

*3 EBh(T+10), EFh(T+9), EEh(T+8)... FEh(T-9), FFh(T-10),
 00(S-10), 01h(S-9), 02h(S-8)... 13h(S+9), 14h(S+10).

Type 23:Harm.Chorus

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime L-Lo	000..500	00..1F4
1	5	DelayTime L-Hi		
2	6	DelayTime R-Lo	000..500	00..1F4
3	7	DelayTime R-Hi		
4	8	Mod Speed	01..99	01..63
5	9	Mod Depth	00..99	00..63
6	10	Filt.SplitPoint	00..18	00..12

Type 24:Sym.Ensemble

Offs	ParaNo.	name	value	data(Hex)
0	4	Mod Depth	00..99	00..63
6	10	EQ.High	-12..+12[dB]	F4..0C
7	11	EQ.Low	-12..+12[dB]	F4..0C

Type 25:Flanger1, 26:Flanger2, 27:XOverFlngr

Offs	ParaNo.	name	value	data(Hex)
0	4	Delay Time	00..200	00..C8
1	5	Mod Depth	00..99	00..63
2	6	Mod Speed	01..99	01..63
3	7	Resonance	-99..99	9D..63

6	10	EQ.Low	-12..+12[dB]	F4..0C
7	11	EQ.High	-12..+12[dB]	F4..0C

Type 28:Exciter

Offs	ParaNo.	name	value	data(Hex)
0	4	Blend	-99..99	9D..63
1	5	Emphatic Point	01..10	01..0A
6	10	EQ.Low	-12..+12[dB]	F4..0C
7	11	EQ.High	-12..+12[dB]	F4..0C

Type 29:Enhancer

Offs	ParaNo.	name	value	data(Hex)
0	4	HarmonicDensity	01..99	01..63
1	5	Hot Spot	01..20	01..14
2	6	Stereo Width	00..99	00..63
3	7	Delay	01..99	01..63
6	10	EQ.Low	-12..+12[dB]	F4..0C
7	11	EQ.High	-12..+12[dB]	F4..0C

Type 30:Distortion, 31:Over Drive

Offs	ParaNo.	name	value	data(Hex)
0	4	Drive(Edge)	01..111	01..6F
1	5	Hot Spot	00..99	00..63
2	6	Resonance	00..99	00..63
3	7	Out Level	00..99	00..63
6	10	EQ.Low	-12..+12[dB]	F4..0C
7	11	EQ.High	-12..+12[dB]	F4..0C

Type 32:Phaser, 33:Phaser 2

Offs	ParaNo.	name	value	data(Hex)
0	4	Mod Depth	00..99	00..63
1	5	Mod Speed	(**)	00..D8
2	6	MG Status	(**)	----
3	7	FeedBack	-99..99	9D..63
4	8	Manual	00..99	00..63

** Mod Speed

00h..63h : 0.03..3.00 (0.03 Step)
 64h..C7h : 3.1...13.0 (0.1 Step)
 C8h..D8h : 14 ...30 (1 Step)

** MG Status

bit0=Mod.WaveForm(0:SIN,1:TRI)
 bit1=Phase(0:0[deg](Phaser 2), 1:180[deg](Phaser 1))
 bit2=Mod.WaveShape(0-fixed)

Type 34:Rotary Speaker

Offs	ParaNo.	name	value	data(Hex)
0	4	Vibrato Depth	00..15	00..0F
1	5	Acceleration	01..15	01..0F
2	6	Slow Speed	01..99	01..63
3	7	Fast Speed	01..99	01..63

Type 35:Auto Pan, 36:Tremolo

Offs	ParaNo.	name	value	data(Hex)
0	4	Depth	00..99	00..63
1	5	Speed	(**)	00..D8
2	6	MG Status	(**)	----
3	7	Shape	-99..99	9D..63
6	10	EQ.High	-12..+12[dB]	F4..0C
7	11	EQ.Low	-12..+12[dB]	F4..0C

** Speed

00h..63h : 0.03..3.00 (0.03 Step)
 64h..C7h : 3.1...13.0 (0.1 Step)
 C8h..D8h : 14 ...30 (1 Step)

** MG Status

bit0=Mod.WaveForm(0:SIN,1:TRI)
 bit1=Phase(0:0[deg](Tremolo), 1:180[deg](Auto Pan))
 bit2=Mod.WaveShape(0-fixed)

Type 37:Para.EQ

Offs	ParaNo.	name	value	data(Hex)
0	4	Low Freq	00..29	00..1D
1	5	Low Gain	-12..+12[dB]	F4..0C
2	6	Mid Freq	00..29	00..1D
3	7	Mid Gain	-12..+12[dB]	F4..0C
4	8	Mid Width	00..99	00..63
5	9	High Freq	00..29	00..1D
6	10	High Gain	-12..+12[dB]	F4..0C

Type 38:Chorus-Delay, 39:Flanger-Delay

Offs	ParaNo.	name	value	data(Hex)
0	4	Cho.DelayTime	00..50	00..32
1	5	Cho.ModSpeed	01..99	01..63
2	6	Cho.ModDepth	00..99	00..63
3	7	Cho.Feedback	-99..99	9D..63
4	8	Dly.DelayTime	00..450	00..E1
5	9	Dly.Feedback	-99..99	9D..63

Type 40:Delay/Hall

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime (Lo)	000..500	00..1F4
1	5	DelayTime (Hi)		
2	6	FeedBack	-99..+99	9D..63
3	7	High Damp	0..99[%]	00..63
4	8	Reverb Time	0.2..9.9[sec]	00..61
6	10	High Damp	0..99[%]	00..63
7	11	Pre Delay	0..150[ms]	00..96

Type 41:Delay/Room

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime (Lo)	000..500	00..1F4
1	5	DelayTime (Hi)		
2	6	FeedBack	-99..+99	9D..63
3	7	Hi Damp	0..99[%]	00..63
4	8	Reverb Time	0.2..4.9[sec]	00..2F
6	10	Hi Damp	0..99[%]	00..63
7	11	Pre Delay	0..150[ms]	00..96

Type 42:Delay/Chorus

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime (Lo)	000..500	00..1F4
1	5	DelayTime (Hi)		
2	6	FeedBack	-99..+99	9D..63
3	7	Hi Damp	0..99[%]	00..63
4	8	Mod Depth	00..99	00..63
5	9	Mod Speed	(**)	00..D8
6	10	MG Status	(**)	----

** See "Type19:Chorus 1".

Type 43:Delay/Flanger

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime (Lo)	000..500	00..1F4
1	5	DelayTime (Hi)		
2	6	FeedBack	-99..+99	9D..63
3	7	Hi Damp	0..99[%]	00..63
4	8	Mod Depth	00..99	00..63
5	9	Mod Speed	(**)	00..D8
7	11	FeedBack	-99..+99	9D..63

** See "Type19:Chorus 1".

Type 44:Delay/Distortion, 45:Delay/OverDrive

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime (Lo)	000..500	00..1F4
1	5	DelayTime (Hi)		
2	6	FeedBack	-99..+99	9D..63
3	7	Drive(Edge)	01..111	01..6F
4	8	Hot Spot	01..99	01..63
5	9	Resonance	00..99	00..63
6	10	Out Level	01..99	01..63

Type 46:Delay/Phaser

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime (Lo)	000..500	00..1F4
1	5	DelayTime (Hi)		
2	6	FeedBack	-99..+99	9D..63
3	7	Hi Damp	0..99[%]	00..63
4	8	Mod Depth	00..99	00..63
5	9	Mod Speed	(**)	00..D8
7	11	FeedBack	-99..+99	9D..63

** See "Type32:Phaser 1".

Type 47:Delay/Rotary Spk.

Offs	ParaNo.	name	value	data(Hex)
0	4	DelayTime (Lo)	000..500	00..1F4
1	5	DelayTime (Hi)		
2	6	FeedBack	-99..+99	9D..63
3	7	Acceleration	01..15	01..0F
4	8	Slow Speed	01..99	01..63
5	9	Fast Speed	01..99	01..63

Type 48:Resonance Filter

Offs	ParaNo.	name	value	data(Hex)
0	4	Trim	0..99	00..63
1	7	Feedback	0..99	00..63
2	8	Cutoff	0..99	00..63
3	9	EGint	-99..+99	9D..63
4	10	Attack	0..127	00..7F
5	11	Decay	0..127	00..7F
6	6	Trigger Type	0,1,2 (**)	00,01,02
7	5	LFO Int	0..127	00..7F

** :Trigger Type 0=Single, 1=Multi1, 2=Multi2

 *
 * **エクスクルーシブ データ ダンプ** *
 * System Exclusive Data Dump *
 *

format: F0,42,3n,4C,cc,dd...,ss,F7

n = EXCL Channel (0..F)

cc = command

dd = datas (7-8)

ss = check sum (dd-ss)

※ [システム エクスクルーシブ メッセージ] "6. Data Dump" 参照。

* Refer [System Exclusive], 6. Data Dump.

[[Global Parameter Data]] size 164=A4h [byte]

※ [エディット パラメータ チェンジ]

Global Mode - Edit Parameter Change 参照。

* Refer [Edit Parameter Change], Global Mode - Edit Parameter Change.

[[Program Parameter Data]] size 178=B2h [byte]

offset	Description
0~ 21	Common Parameter
22~ 99	OSC 1 Parameter
100~ 177	OSC 2 Parameter

※ [エディット パラメータ チェンジ] Program Edit Mode - Edit Parameter Change 参照。

* Refer [Edit Parameter Change], Program Edit Mode - Edit Parameter Change.

[[Drum Kit Data]]

offset	Description
0~ 13	Inst 1 'C0'
14~ 27	Inst 2 'C#0'
28~ 41	Inst 3 'D0'
42~ 55	Inst 4 'D#0'
56~ 69	Inst 5 'E0'
70~ 83	Inst 6 'F0'
84~ 97	Inst 7 'F#0'

.	.
.	.
1190~1203	Inst 86 'C#7'
1204~1217	Inst 87 'D7'
1218~1231	Inst 88 'D#7'
1232~1245	Inst 89 'E7'
1246~1259	Inst 90 'F7'
1260~1273	Inst 91 'F#7'

98~ 111	Inst 8	'G0'	1274~1287	Inst 92	'G7'
112~ 125	Inst 9	'G#0'	1288~1301	Inst 93	'G#7'
126~ 139	Inst 10	'A0'	1302~1315	Inst 94	'A7'
140~ 153	Inst 11	'A#0'	1316~1329	Inst 95	'A#7'
154~ 167	Inst 12	'B0'	1330~1343	Inst 96	'B7'
.	.	.	1344~1357	Inst 97	'C8'
.	.	.			

<Drum Kit Inst Data>

offset	name	value	description
0,1	Instrument No.	0..285	'Fat Kick'...'Metronome2'
2	Coarse Tune	-64..+63[Semitone]	
3	Fine Tune	-64..+63[Cent]	
4	Level	0..127	
5	Exclusive Group	0=OFF, 1..127=Group No.	
6	Key Assign Switch	0=OFF 1=ON	**
7	Relative Cutoff	-64..63	
8	Relative Color	-64..63	
9	Rel Attack Time	-64..63	
10	Rel Decay Time	-64..63	
11	Panpot	0,1~64~127,128	RND,L63~CNT~R63,OFF
12	Reverb Send(C-send)	0..127	
13	Chorus Send(D-send)	0..127	

** key Assign Switch

bit 0: Rx Note ON (0=Disable, 1=Enable)

bit 1: Rx Note OFF (0=Disable, 1=Enable)

bit 2: Assign Mode (0=Single, 1=Multi)

[[Effect Parameter Data]] size 38=26h [byte]

offs	name	value	description
0	Effect Name	20h..7Fh	' '...
.	.	.	.
7	Effect Name	20h..7Fh	' '...
8	Effect 1 Type	0,1..48	OFF,Hall..Resonance
9	Effect 2 Type	0,1..48	OFF,Hall..Resonance
10	Effect 1 L-Balance	0..100	
11	Effect 1 R-Balance	0..100	
12	Effect 2 L-Balance	0..100	
13	Effect 2 R-Balance	0..100	
14	Output 3 Panpot	0,1,2..100,101	OFF, R, 01:99..99:01, L
15	Output 4 Panpot	0,1,2..100,101	OFF, R, 01:99..99:01, L
16(bit0,1)	Fx 1 Switch	OFF:*****00b, ON:*****11b	
16(bit2,3)	Fx 2 Switch	OFF:****00**b, ON:****11**b	
16(bit4-7)	Placement	0..5	
		0=Serial, 1=Parallel	
		2=Parallel-2, 3=Parallel-3	
		4=Serial-SUB 5=Parallel-SUB	
17	(Effect 1 Parameter)		
.	.		
24		Cf. Edit Parameter Change, Effect Edit Mode.	
25	Fx1 Dyna.Mod.Source	0..6	None,Mod1,Mod2,Mod3,After,VDA-EG
26	Fx1 Dyna.Mod.Int	-15..15	(Flh..0Fh)
27	(Effect 2 Parameter)		
.	.		
34		Cf. Edit Parameter Change, Effect Edit Mode.	
35	Fx2 Dyna.Mod.Source	0..6	None,Mod1,Mod2,Mod3,After,VDA-EG
36	Fx2 Dyna.Mod.Int	-15..15	(Flh..0Fh)
37	(dummy byte)	0	

[[Combination Data]] size 124=7Ch [byte]

offs	name	value	description
0	Combination Name	20h..7Fh	' '...
.	.	.	.
9	Combination Name	20h..7Fh	' '...
10	Effect Bank No.		
11	Effect No.	Cf. Combination Edit.Parameter Change	
	(Timbre 1)		

12	Program Bank MSB	(Cf. Voice Name List)	
13	Program Bank LSB		
14	Program Number	00h..7Fh	0..127
15	Volume	00h..7Fh	0..127
16	Panpot	0,1~64~127,128	RND,L63~CNT~R63,OFF
17	'C' Send	00h..7Fh	0..127
18	'D' Send	00h..7Fh	0..127
19	Note Window Bottom	00h..7Fh	0..127
20	Note Window Top	00h..7Fh	0..127
21	Velocity Window Bottom	01h..7Fh	1..127
22	Velocity Window Top	01h..7Fh	1..127
23	Transpose	E8h..00h..18h	-24~0~+24 [semitone]
24	Detune	C0h..00h..40h	-64~0~+64 [sent]
25	Receive Switch	0:Disable, 1:Enable	
		bit0: NoteOnOff (Timbre ON/OFF)	
		bit1: Control Change	
		bit2: Pitch Bend	
		bit3: Channel After	
		bit4: Damper	
		bit5: Portamento	

(Timbre 2)	offset: 26 .. 39	same as Timbre 1
(Timbre 3)	offset: 40 .. 53	same as Timbre 1
(Timbre 4)	offset: 54 .. 67	same as Timbre 1
(Timbre 5)	offset: 68 .. 81	same as Timbre 1
(Timbre 6)	offset: 82 .. 95	same as Timbre 1
(Timbre 7)	offset: 96 .. 109	same as Timbre 1
(Timbre 8)	offset: 110 .. 123	same as Timbre 1

[[Performance Data]]

offset	Description
0~ 91	Part 1 Parameter
92~ 183	Part 2 Parameter
184~ 275	Part 3 Parameter
276~ 367	Part 4 Parameter
368~ 459	Part 5 Parameter
460~ 551	Part 6 Parameter
552~ 643	Part 7 Parameter
644~ 735	Part 8 Parameter
736~ 827	Part 9 Parameter
828~ 919	Part 10 Parameter
920~1011	Part 11 Parameter
1012~1103	Part 12 Parameter
1104~1195	Part 13 Parameter
1196~1287	Part 14 Parameter
1288~1379	Part 15 Parameter
1380~1471	Part 16 Parameter
1472~1495	Part Common Param
1498~1533	Effect Parameter

<Part Parameter Data>

offs	name	value	description
0	Bank MSB	0..127 (Cf. Voice Name List)	
1	Bank LSB	0..127	
2	Program No.	0..127	
3	Receive MIDI Channel	0~15,16~31,32	A01~16, B01~16,OFF
4(b0)	Rx RPC SW	0,1	OFF/ON
4(b1)	Rx NRPC SW	0,1	OFF/ON
4(b2)	Rx Modulation SW	0,1	OFF/ON
4(b3)	Rx Volume SW	0,1	OFF/ON
4(b4)	Rx Panpot SW	0,1	OFF/ON
4(b5)	Rx Expression SW	0,1	OFF/ON

4(b6)	Rx Sostenute SW	0,1	OFF/ON
4(b7)	Rx Soft Pedal SW	0,1	OFF/ON
5(b0)	Rx Note ON/OFF SW	0,1	OFF/ON
5(b1)	Rx Control Change SW	0,1	OFF/ON
5(b2)	Rx Pitch Bend SW	0,1	OFF/ON
5(b3)	Rx Channel After SW	0,1	OFF/ON
5(b4)	Rx Damper SW	0,1	OFF/ON
5(b5)	Rx Portamento SW	0,1	OFF/ON
5(b6)	Rx Program Change SW	0,1	OFF/ON
5(b7)	Rx Poly After SW	0,1	OFF/ON
6	MONO/POLY	0,1	0:Mono, 1:Poly
7	Part Mode	0,1,2..5	Normal,Drum,Mdrum1..4
8	Coarse Tune	-24..0..+24	
9	Fine Tune	-50..0..+50	
10	Volume	0..127	MIDI Volume CC#7
11	Expression	0..127	MIDI Expression CC#11
12	Velocity Sence Depth	0..127	
13	Velocity Sence Offset	0..127	
14	Panpot	0,1~64~127,128	RND,L63~CNT~R63,OFF
15	Receive Note Bottom	0..127	'C-1' .. 'G9'
16	Receive Note Top	0..127	'C-1' .. 'G9'
17	AC1 Number	0..95	Assignable Control-1
18	AC2 Number	0..95	Assignable Control-2
19	Chorus Send	0..127	Chorus('D') Send
20	Reverb Send	0..127	Chorus('C') Send
21	Rx Bank Select SW	0,1	OFF/ON
22	Vibrato Frequency	-64..0..+63	offset
23	Vibrato Intensity	-64..0..+63	offset
24	Vibrato Delay Start	-64..0..+63	offset
25	VDF Cutoff Frequency	-64..0..+63	offset
26	Color	-64..0..+63	offset
27	EG Attack Time	-64..0..+63	offset
28	EG Decay Time	-64..0..+63	offset
29	EG Release Time	-64..0..+63	offset
30	Scale 'C '	-64..0..+63[cent]	
31	Scale 'C#'	-64..0..+63[cent]	
32	Scale 'D '	-64..0..+63[cent]	
33	Scale 'D#'	-64..0..+63[cent]	
34	Scale 'E '	-64..0..+63[cent]	
35	Scale 'F '	-64..0..+63[cent]	
36	Scale 'F#'	-64..0..+63[cent]	
37	Scale 'G '	-64..0..+63[cent]	
38	Scale 'G#'	-64..0..+63[cent]	
39	Scale 'A '	-64..0..+63[cent]	
40	Scale 'A#'	-64..0..+63[cent]	
41	Scale 'B '	-64..0..+63[cent]	
<hr/>			
42	Modulation Pitch Bend	-24..0..+24[semitone]	
43	Modulation VDF Cutoff	-64..0..+63	
44	Modulation VDA Level	-64..0..+63	
45	Modulation LFO Freq	-10..0..+10	
46	Modulation LFO Pitch	0..127	
47	Modulation LFO VDF	0..127	
48	Modulation LFO VDA	0..127	
49	Bend Wheel Pitch Bend	-25,-24..0..+24[semitone]	-25='PRG'
50	Bend Wheel VDF Cutoff	-64..0..+63	
51	Bend Wheel VDA Level	-64..0..+63	
52	Bend Wheel LFO Freq	-10..0..+10	
53	Bend Wheel LFO Pitch	0..127	
54	Bend Wheel LFO VDF	0..127	
55	Bend Wheel LFO VDA	0..127	
56	Ch.After Pitch Bend	-24..0..+24[semitone]	
57	Ch.After VDF Cutoff	-64..0..+63	
58	Ch.After VDA Level	-64..0..+63	
59	Ch.After LFO Freq	-10..0..+10	
60	Ch.After LFO Pitch	0..127	
61	Ch.After LFO VDF	0..127	
62	Ch.After LFO VDA	0..127	
63	PolyAfter Pitch Bend	-24..0..+24[semitone]	
64	PolyAfter VDF Cutoff	-64..0..+63	
65	PolyAfter VDA Level	-64..0..+63	
66	PolyAfter LFO Freq	-10..0..+10	
67	PolyAfter LFO Pitch	0..127	
68	PolyAfter LFO VDF	0..127	
69	PolyAfter LFO VDA	0..127	
70	AssignCtrl1 Pitch Bend	-24..0..+24[semitone]	
71	AssignCtrl1 VDF Cutoff	-64..0..+63	
72	AssignCtrl1 VDA Level	-64..0..+63	
73	AssignCtrl1 LFO Freq	-10..0..+10	
74	AssignCtrl1 LFO Pitch	0..127	
75	AssignCtrl1 LFO VDF	0..127	
76	AssignCtrl1 LFO VDA	0..127	
77	AssignCtrl2 Pitch Bend	-24..0..+24[semitone]	
78	AssignCtrl2 VDF Cutoff	-64..0..+63	
79	AssignCtrl2 VDA Level	-64..0..+63	
80	AssignCtrl2 LFO Freq	-10..0..+10	
81	AssignCtrl2 LFO Pitch	0..127	
82	AssignCtrl2 LFO VDF	0..127	
83	AssignCtrl2 LFO VDA	0..127	
<hr/>			
84	Portamento SW	0,1	OFF/ON

85	Portamento Time	0..127
86	Pitch EG Start Level	-64..0..+63
87	Pitch EG Attack Time	-64..0..+63
88	Pitch EG Release Time	-64..0..+63
89	Pitch EG Release Level	-64..0..+63
90	Velocity Window Bottom	1..127
91	Velocity Window Top	1..127

<Part Common Parameter Data>

offset	name	value	description	
0	Master Volume	0..127		
1	Master Balance	1..64..127	L63..CNT..R63	
2	Change Upper Part	0..15	Part Number(Part1..16)	
3	Change Lower Part	0..15	Part Number(Part1..16)	
4	Upper Lower Balance	0..64..127	Lower..Even..Upper	
5(bit0-1)	Single/Layer/Split	0..2	Single/Layer/Split	
5(bit4-7)	Octave	E,F,0,1,2(hex)	-2,-1,0,1,2[octave]	
6	Split Point	21..108	A0..C8	
7	Change KNOB Select	0,1,2	0,1,2=Default,Assign,Arpeggio	
8	KNOB 1 Assign	0..110		**
9	KNOB 2 Assign	0..110		**
10	KNOB 3 Assign	0..110		**
11	KNOB 4 Assign	0..110		**
12	Mod Wheel Assign	0..110	(ignore N1R)	**
13	Exp.Pedal Assign	0..110	(ignore N1R)	**
14	Damper Pedal Assign	0,1,2	Up+Lo, Lower, Upper	
15(bit0)	Arp.SW	0,1	OFF/ON	
15(bit1)	Arp.Sort	0,1	OFF/ON	
15(bit2-3)	Arp.Latch&KeySync	0,1,2,3	OFF,Latch,K_Sync,Latch+K_Sync	
16	Arp.Pattern	0..19		**
17	Arp.Octave	1..4	1..4[oct]	
18	Arp.Speed	40..240	tempo [beet/minute]	
19	Arp.Step Base	0..5		**
20	Arp.Gate Time	1..101	1..100[%], 101=Step	
21	Arp.Velocity	1..127,128,129	1..127, 128=Key, 129=Step	
22	Arp.Zone	1..3	Lower/Upper/All	
23	Arp.Swing	-99..+99	-99..+99[%]	

** [エディット パラメータ チェンジ] Performance Edit Mode - Edit Parameter Change 参照。

** Refer [Edit Paramter Change], Performance Edit Mode - Edit Parameter Change.

[END]